THE FOOD OF WORKING WOMEN IN BOSTON

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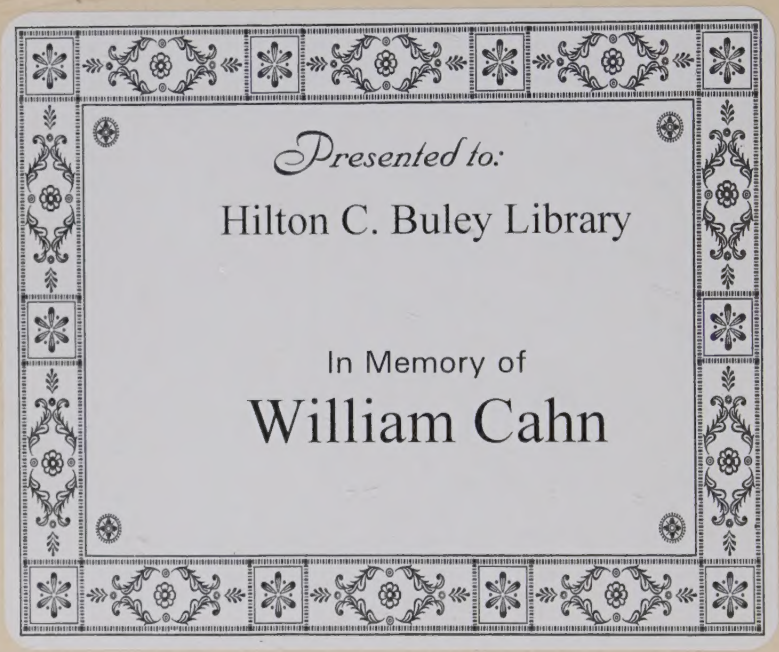

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VOLUME X. The Food of Working Women in Boston. By the Department of Research. Prepared under the direction of Lucile Eaves, Ph.D., published by the Massachusetts Department of Health. 8vo. Cloth. Price, $1.00 *net*. Postage extra.

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WOMEN'S EDUCATIONAL AND INDUSTRIAL UNION

BOSTON

DEPARTMENT OF RESEARCH

STUDIES IN ECONOMIC RELATIONS OF WOMEN

VOLUME X

The Commonwealth of Massachusetts

STATE DEPARTMENT OF HEALTH

THE FOOD OF WORKING WOMEN IN BOSTON

AN INVESTIGATION BY THE DEPARTMENT OF RESEARCH
WOMEN'S EDUCATIONAL AND INDUSTRIAL UNION, BOSTON

LUCILE EAVES, Ph.D., Director

IN CO-OPERATION WITH THE STATE DEPARTMENT OF HEALTH

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PREFACE.

This investigation of the food of working women in Boston was suggested by Dean Sarah Louise Arnold of Simmons College, who was serving as chairman of a committee appointed by the Massachusetts Conference of Charities and Corrections to consider ways of assisting women employed in Boston and living away from their families. Several previous investigations had supplied information about lodging, but there were no available data which would show whether such women were obtaining nourishing food at a price adapted to their incomes. The State Department of Health, in conference, expressed an appreciation of the social significance of the subject, and accepted the co-operation of the Research Department of the Women's Educational and Industrial Union, and were willing to assist in placing the results of such a study before the public.

It seemed peculiarly appropriate that the Women's Educational and Industrial Union should undertake such an investigation, because the topic is intimately related to its past heritage and present activities. Several of the pioneer enterprises of Mrs. Ellen H. Richards, which established Boston's claims to leadership in the efforts to promote the practical applications of dietary knowledge, are now being carried on by the Union. The most notable of these are the New England Kitchen, which was established in 1890 for the purpose of demonstrating methods of supplying attractive and nutritious food at moderate prices, and the luncheons for high schools which were started in 1894 as the first American effort to deal in a scientific way with the nourishment of school children.

It is evident that the information sought in this investigation is of fundamental importance in the formation of plans for the realization of the aims of the Union, namely, the promotion of the best practical methods for securing the educational, industrial and social advancement of women. In pursuance of these aims there has been much co-operation in public health activities and in efforts to secure legislation beneficial to working women. However, social obligations for the protection of the health of the future mothers of the race do

not end with the enactment and enforcement of laws preventing excessive hours of labor, and securing healthful places of work and suitable sanitary conveniences. Add to these the payment of an adequate wage and about all which society may fairly demand of the employer has been attained. The prevention of abuses must be supplemented by the more difficult task of educating the worker to a personal hygiene comparable to the sanitary conditions which the law exacts from her employer, and an expenditure of the wage which will insure the greatest possible strength and efficiency.

No argument is needed to prove the fundamental importance of the topics about which we have sought information. It is obvious that labor power is directly dependent on nutrition, and that the chief factor entering into the minimum wage, which society may enforce on the employer, is the cost of food. The increase in the number of women who are working outside the home demands careful attention to problems connected with the maintenance of their vitality in order that industry may not draw too heavily on those reserves of energy necessary for racial continuance and development.

The economic world deals with these working women as individual units, hence it seems suitable to use this unit in studying their standards of living. The family has usually been the unit in previous investigations. While the minimum wage commissions have reported on the cost of living of women in different localities, their reports have not segregated the cost of food from expenditures for lodging, clothing and other items. It seems probable that the large cities of the United States afford the best opportunities for this study of the living conditions of individual working women because the unusual independence of American women, which has been fostered by social conditions promoting their safety, has increased their tendency to live outside of family groups.

An investigation entering previously unexplored territory meets with the difficulties which are characteristic of pioneer enterprises. Records for which there has been little previous demand are rarely kept with care or accuracy. The choice of food has been left largely to instinct or chance, and the public has not been educated to an appreciation of the value of both personal and institutional accounting in such matters. In the absence of reliable records we were forced to limit the scope of the study to the short period that could be covered by our investigators, or, in the case of institutions, to

resort to estimates which are not entirely reliable. In every case we have indicated the sources of our information so that readers may judge of its value.

The work of our Research Department combines co-operation with individual responsibility. Miss Louise Moore, the assistant director, has been in immediate charge of the field work, and also has prepared the chapter on "The Food of Women living away from their Families." While there has been considerable co-operation in the field work, the three Fellows have devoted their attention chiefly to the topics about which they expected to write. The chapter on "The Noon Luncheon" was prepared by Miss May R. Lane; that on "The Food of Women living in Organized Houses" by Miss Ora M. Harnish; and the one dealing with "The Food of Certain Dispensary Patients" by Miss Irene G. Farnham. Miss Lela Brown and Miss Miriam Segel of Simmons College, Miss Helen R. Hibbard of Wellesley College and Miss Esther M. Flint of Radcliffe College gave some assistance in the field work. The Boston Simmons Club also interested itself in obtaining individual schedules. Miss Margaret Sander, the secretary of the Research Department, rendered valuable assistance in the tabulation of data and preparation of tables. As these studies constitute a part of the training in social-economic investigation given in the Research Department of the Women's Educational and Industrial Union, the director has been responsible for planning, supervising and editing the work, and also has prepared the first and last chapters of the report. We are indebted to the officials of the Carnegie Nutrition Laboratory for permission to make use of the books and bibliographies collected in their library.

LUCILE EAVES,
Director of the Research Department,
Women's Educational and Industrial Union.

Boston, Jan. 15, 1917.

TABLE OF CONTENTS.

PAGE

PREFACE, ... 3–5

LIST OF TABLES, ... 9–12

CHAPTER I. — CHARACTERISTICS OF THE FIELD STUDIED.

By LUCILE EAVES.

Scope of study. Statistics of women wage earners in eight largest cities. Cost of food in Boston. Variations in retail prices of food in different cities. Principal food articles in an average menu. Retail prices of groceries required in average menu, ... 13–19

CHAPTER II. — THE NOON LUNCHEON.

By MAY R. LANE.

Method and scope of the investigation. Methods of obtaining and serving noon lunches. Factors determining the bringing of lunches. Relation of wages to kind of lunch. Reasons given for purchasing lunches. Reasons given for bringing lunches from home. Relation of length of noon hour to kind of lunch. Character of employment in relation to kind of lunch. Use made of spare time after lunch by women in factories, offices and department stores. Nationality of workers in relation to kind of lunch. Cooking facilities provided for factory workers. Kinds of food brought from home. The box lunch and fruit vender. Lunches purchased by factory workers. Lunches of women in department stores. Comparison of quality and prices of food in restaurants and employees' cafeterias. Variety of food in lunches of department store workers. Types of employees' cafeterias. Equipment of lunch, rest and recreation rooms for employees. Patronage, prices and expenses of employees' cafeterias, ... 20–64

CHAPTER III. — THE FOOD OF WOMEN LIVING AWAY FROM THEIR FAMILIES.

By LOUISE MOORE.

Living arrangements of women workers. Occupations, age and birthplace of a group of women "adrift." Expenditure for food. Effect of residence on expenditure for food and rent. Average weekly expenditure for living expenses. Light housekeeping arrangements. Co-operative plans. Expenditures of women receiving low wages. Variety of food in weekly menus. Dietary habits of women studied. Specimen menus. Relation of wage to food expenditure, ... 65–100

CHAPTER IV. — THE FOOD OF WOMEN IN ORGANIZED HOUSES.

By ORA M. HARNISH.

Types of homes for working women. Occupations and earnings of women living in organized houses. Purpose and management of houses in Boston. Cost and variety of food served. Adequacy of food supplied. Cost of providing food. Equipment and methods of serving. Factors influencing the utilization of these houses, ... 101–125

PAGE

CHAPTER V. — FOOD OF CERTAIN DISPENSARY PATIENTS.

By IRENE G. FARNHAM.

Classification of women dispensary patients by age, nativity, occupation and marital condition. Characteristics of patients studied. Wages, occupations and dispensary diagnoses. Kinds of food eaten during one week. Proportion of protein, carbohydrate and mineral containing foods in weekly diet. Food of patients suffering from specified disorders. Specimen menus. Preparation and service of food. Economic status of families of patients. Living conditions in relation to health of patients. Relation of industry to health. Hours of work reported by patients. Uses made of leisure time, . 126–160

CHAPTER VI. — COMPARATIVE SUMMARIES AND CONSTRUCTIVE SUGGESTIONS.

By LUCILE EAVES.

Minimum lunch facilities for factories. Organization of employees' lunch rooms. Living plans of lone women. Growing patronage of restaurants. Light housekeeping, its advantages and disadvantages. Choice of food by women of different wage groups. Co-operative housekeeping. Modifications in the policies of the organized boarding houses. Food in relation to the health and efficiency of working women, ... 161–184

APPENDICES.

A. — Forms of Inquiry used in this Investigation, ... 187–193

B. — List of Firms having an Employees' Cafeteria, ... 194, 195

C. — Methods of calculating the Variety of Food, ... 196–198

D. — Bibliography, ... 199–202

INDEX, ... 205–213

LIST OF TABLES.

Table		Page
1.	Number and Per Cent. of Females Fourteen Years of Age and over engaged in Gainful Occupations in the Eight Largest Cities of the United States, classified by Age Groups. Based on the United States Census of 1910,	14
2.	Number and Per Cent. of Females engaged in Gainful Occupations in the Eight Largest Cities in the United States who are not receiving Food as Part of their Wages, classified by Age Groups. Based on the United States Census of 1910,	15
3.	Number and Per Cent. of Females Ten Years of Age and over in Gainful Occupations in the Eight Largest Cities of the United States, classified by Color, Nativity and Parentage. Based on the United States Census of 1910,	16
4.	Index Numbers showing Variations in Retail Prices of the Principal Articles of Food in the Eight Largest Cities of the United States on June 15, 1915. Prices in Boston used as the Base,	17
5.	Retail Prices in the Eight Largest Cities of the United States of Groceries required to furnish an Average Menu for a Working Woman for Twenty-eight Days,	19
6.	Methods by which the Women and Girls interviewed obtained their Noon Lunches, distributed by Kinds of Employment,	21
7.	Places where Noon Luncheon was eaten by Women and Girls engaged in Manufacturing and Mercantile Pursuits and in Office Work in Boston City Proper,	22
8.	Amount and Kind of Wage and Length of Noon Hour of Women and Girls in Factories and Factory Offices who brought Lunches from Home or bought them in Town,	26
9.	Reasons for buying Lunches in Town given by Women and Girls in Factories and Factory Offices, classified according to Wages and Length of Noon Hour,	27
10.	Reasons for bringing Lunches from Home given by Women and Girls in Factories and Factory Offices, classified according to Wages and Length of the Noon Hour,	28
11.	Classification of Women and Girls employed in the Principal Factory District of Boston according to Occupation and the Length of the Lunch Period,	30
12.	Use of Spare Time after Luncheon by Women and Girls in Factories and Factory Offices, distributed according to Kind of Employment,	31
13.	Use of Spare Time after Luncheon by Women and Girls in Department Stores of Boston City Proper,	31
14.	Women and Girls in Factories, Factory Offices and Department Stores, classified according to Method of obtaining the Noon Luncheon, Parentage and Nativity,	33
15.	Extent of Use of Cooking Facilities by Women and Girls working in Factories and Factory Offices,	36
16.	Number of Times the Kinds of Foods appear in Lunch Menus of Women and Girls of English and Non-English Speaking Parentage working in Factories and Factory Offices who brought Lunches from Home,	38, 39
17.	Choice of Meat and Fish as Sandwich Fillings by Women and Girls of English and Non-English Speaking Parentage working in Factories and Factory Offices who brought Lunches from Home,	41
18.	Commercial Restaurants patronized by Women and Girls working in Factories and Factory Offices, classified according to Frequency of Buying, and Prices actually paid for Menus in Week of Interview,	43

TABLE PAGE

19. Number of Times the Kinds of Food appear in the Lunch Menus of Women and Girls working in Factories and Factory Offices who bought Lunches in Commercial Restaurants, ... 46
20. Reasons assigned by Women and Girls working in Department Stores in Boston for buying Lunches in Employees' Cafeterias rather than bringing them from Home, ... 48
21. Kinds of Food and Prices at which they are offered in Eight Commercial Restaurants patronized by Women and Girls working in Boston, as compared with Prices at which they are offered in Thirteen Employees' Cafeterias in Ten Cities, ... 51, 52
22. Number of Times the Kinds of Food appear in Lunch Menus of Women and Girls in Department Stores, classified according to Method of obtaining Food, 55
23. Percentage and Frequency of bringing, buying and supplementing Lunches by Women and Girls working in Seven Department Stores of Boston who ate in Employees' Lunch Rooms, ... 56
24. Number of Times Certain Foods appear in Lunch Menus of Women and Girls in Department Stores who brought Lunches from Home and supplemented them by Food purchased in Employees' Cafeterias, ... 57
25. Patronage, Predominant Price paid for Lunches, Cost of Food and Labor per Week, and Approximate Expenditure per Week in Employees' Cafeterias in Twenty-five Factories, Stores and Offices in Sixteen Cities, ... 61
26. Living Arrangements of Women Sixteen Years of Age and over engaged in Gainful Occupations in the Eight Largest Cities in the United States, . . 66
27. Living Arrangements of Women engaged in Different Industries in Massachusetts, ... 67
28. Occupations of Two Hundred and Sixty-one Women living Adrift in Boston, . 69
29. Age and Birthplace of Two Hundred and Sixty-one Working Women living away from their Families, ... 70
30. Number of Women living away from their Families expending Specified Amounts for Food, by Wage Groups, ... 74
31. Per Cent. of the Average Weekly Income of Women living away from their Families spent for Food, by Wage Groups, ... 75
32. Number of Women living away from their Families expending Specified Amounts for Food and Rent, by Places of Residence, ... 77
33. Per Cent. of the Average Weekly Income of Women living away from their Families spent for Rent, by Wage Groups, ... 77
34. Per Cent. of the Average Weekly Income of Women living away from their Families spent for Food and Lodging, by Wage Groups, ... 78
35. Average Weekly Expenditures for Food and Lodging of Women living in New York City and in Ohio, by Wage Groups, ... 79
36. Number of Women living away from their Families expending Specified Amounts for Food, Rent and Laundry, by Wage Groups, ... 82
37. Average Weekly Wage and Average Weekly Expenditure for Food, classified by Plans of Living of Women away from their Families, ... 83
38. Frequency of Use in One Week of Tea and Coffee by Two Hundred and Sixty-one Women living away from their Families, by Wage Groups, ... 91
39. Frequency of Use in One Week of Certain Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of Two Hundred and Sixty-one Women living away from their Families, by Wage Groups, . . . 92
40. Frequency of Use in One Week of Protein Foods and the Proportions which they constitute of the Total Weekly Range of Diet of Two Hundred and Sixty-one Women living away from their Families, by Wage Groups, . . . 94
41. Frequency of Use in One Week of Carbohydrate Foods and the Proportions which they constitute of the Total Weekly Range of Diet of Two Hundred and Sixty-one Women living away from their Families, by Wage Groups, . 95

TABLE PAGE

42. Frequency of Use in One Week of Foods containing Minerals and the Proportions which they constitute of the Total Weekly Range of Diet of Two Hundred and Sixty-one Women living away from their Families, by Wage Groups, 98
43. Capacity of the Different Types of Organized Houses in Boston and Vicinity, and the Number of Occupants at the Time of the Investigation, . . . 103
44. Occupations of Women living in Organized Houses in Boston and Vicinity, . 104
45. The Proportion of Women Sixteen Years of Age and over in Selected Occupations in Boston, living away from their Families in 1900 and in 1910, . . 105
46. Weekly Earnings of Eight Hundred and Eighteen Women living in Seven Subsidized Houses, ... 105
47. The Purpose and Management of Eighteen Organized Houses offering Accommodations to Working Women in Boston and Vicinity, . . . 107, 108
48. The Cost and Variety of Food served in Twenty Organized Houses in Boston and Vicinity, ... 110–112
49. Amount of Protein and Value of Calories of Food furnished by Eight Organized Houses in Boston and Vicinity. Based on Supplies used during One Week, . 115
50. Metabolism of Women engaged in Different Occupations, ... 116
51. Source of Proteins consumed per Person per Day in Eight Organized Houses in Boston and Vicinity. Based on Supplies used during One Week, ... 118
52. Patients coming to Eight Dispensaries in Boston, classified by Number of New Patients and Total Number of Visits from All Patients in One Year, . . 126
53. New Patients classified by Age and Sex. Data from Four Dispensaries, . . 127
54. Women Sixteen Years of Age and over, classified by Participation in Gainful Occupations. Data from Four Dispensaries, ... 129
55. Female Dispensary Patients in Gainful Occupations, classified by Nativity and Age. Data from Four Dispensaries, ... 130
56. Female Dispensary Patients in Gainful Occupations, classified by Occupation and Marital Condition. Data from Four Dispensaries, ... 131
57. Female Dispensary Patients in Gainful Occupations, classified by Dispensary Departments and by Occupations. Data from Four Dispensaries, . . 133
58. Distribution by Age and Nativity of One Hundred and Twenty-six Dispensary Patients, ... 134
59. Distribution by Occupation and Wage of One Hundred and Twenty-six Dispensary Patients, ... 134
60. Occupations and Dispensary Diagnoses of One Hundred and Twenty-six Patients, 135
61. Frequency of Use in One Week of Certain Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients, ... 136
62. Frequency of Use in One Week of Protein Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients, ... 137
63. Frequency of Use in One Week of Carbohydrate Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients, ... 139
64. Frequency of Use in One Week of Foods containing Minerals, and Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients, ... 141
65. Frequency of Use in One Week of Certain Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients, by Nativity of Parents, ... 142
66. Frequency of Use in One Week of Protein Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients, by Nativity of Parents, ... 144
67. Frequency of Use in One Week of Carbohydrate Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients, by Nativity of Parents, ... 145

TABLE PAGE

68. Frequency of Use in One Week of Foods containing Minerals, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients, by Nativities of Parents, . . 147
69. Frequency of Use in One Week of Certain Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients suffering from Constipation and Other Disorders, ... 148
70. Frequency of Use in One Week of Protein Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients suffering from Constipation and Other Disorders, ... 150
71. Frequency of Use in One Week of Carbohydrate Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients suffering from Constipation and Other Disorders, ... 150
72. Frequency of Use in One Week of Foods containing Minerals, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients suffering from Constipation and Other Disorders, ... 151
73. Economic Status of the Families of One Hundred and Twenty-six Dispensary Patients, ... 155
74. Weekly Hours of Work in Different Occupations reported by One Hundred and Twenty-six Dispensary Patients, ... 158
75. Uses made of Leisure Time by One Hundred and Twenty-six Dispensary Patients, 159
76. Distribution by Height and Weight of Wage-earning Women registered in the Young Women's Christian Association Gymnasium Classes and of Wellesley College Students, ... 183
77. Frequency of Use in One Week of Certain Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients from whom Twenty-one Meal and Six Meal Schedules were obtained, ... 197

THE FOOD OF WORKING WOMEN IN BOSTON.

CHAPTER I.

CHARACTERISTICS OF THE FIELD STUDIED.

This study of how working women are supplied with their daily bread was made in a community where the competition is more severe and the cost of food greater than in any other of the large cities of the United States. It deals with the cost and variety of food supplied under conditions varying from those of the hall bedroom with one gas burner to those of a large boarding house where 800 women are served in one dining room. It shows what women select for themselves, what their employers supply for them, and what is provided for them by benevolent societies organized for the purpose of furnishing wholesome living conditions at a minimum cost.

The subjects discussed are factors of vital importance in the lives of half the women living in the largest cities of this country, since it is evident from the accompanying table that such a proportion of the women are at work during their minorities if not during their adult lives. The strain of the effort to earn their own support comes at an age when there is peculiar need that they be well nourished in order that they may meet the unusual physical demands of the passage from childhood to womanhood. In 5 of the 8 largest cities over half of the young girls are at work, and the percentages in the remaining 3 approach this proportion, while the total for these centers of our American civilization is 53 per cent. It is difficult to exaggerate the social significance of these facts.

Boston falls below the average of the 8 cities in the proportion of her young women who are at work, but the high percentage of adult women dependent on their own exertions raises the total in gainful occupations above that of the other cities. One-third (32.5 per cent.) of the women fourteen years of age and over in the 8 largest cities are wage earners, but this percentage is not evenly distributed, as Pittsburg and Cleveland have 27 per cent. (Pittsburg 27.2 per cent., Cleveland 27.6 per cent.), while Boston has 10 per

cent. more (37.2 per cent.). The 4 cities having the highest proportion of adult women workers also have an excess of females in the population, while the remaining 4 cities have more males than females. However, it seems probable that this surplus of women is

TABLE 1. — *Number and Per Cent. of Females Fourteen Years of Age and Over engaged in Gainful Occupations in the Eight Largest Cities of the United States, classified by Age Groups. Based on the United States Census of 1910.*[1]

CITIES.	TOTAL FEMALES 14 YEARS AND OVER.			FEMALES 14 YEARS AND UNDER 21.			FEMALES 21 YEARS AND OVER.		
	In Population.	IN GAINFUL OCCUPATIONS.		In Population.	IN GAINFUL OCCUPATIONS.		In Population.	IN GAINFUL OCCUPATIONS.	
		Number.	Per Cent.		Number.	Per Cent.		Number.	Per Cent.
The 8 cities, . .	4,242,847	1,379,734	32.5	805,016	427,836	53.1	3,437,831	951,898	27.7
Boston, . .	259,063	96,283	37.2	41,175	20,302	49.3	217,888	75,981	34.9
Baltimore, . .	219,816	77,445	35.3	40,690	20,979	51.6	179,126	56,466	31.5
Philadelphia, .	593,017	199,993	33.7	104,125	58,686	56.4	488,892	141,307	28.9
New York, . .	1,743,986	585,571	33.6	342,946	188,319	54.9	1,401,040	397,252	28.4
Chicago, . .	779,702	236,615	30.4	153,073	81,133	53.0	626,629	155,482	24.8
St. Louis, . .	261,468	77,510	29.6	48,832	23,407	47.9	212,636	54,103	25.4
Cleveland, . .	196,577	54,742	27.8	37,667	19,312	51.3	158,910	35,430	22.3
Pittsburg, . .	189,218	51,575	27.2	36,508	15,698	43.0	152,710	35,877	23.5

[1] The population of these 8 cities is 12.5 per cent. of the total population and 27.1 per cent. of the urban population of the United States.

not the chief factor in promoting the tendency for Boston women to become self-supporting, since both Baltimore and Philadelphia have a greater excess of females in the population.

Three-fourths (75.6 per cent.) of the women who are at work use a large portion of their earnings to purchase food, while the remaining fourth receive food as a part of their wages. The younger women who usually are members of family groups show a greater tendency to work for a money compensation, while as high as 29 per cent. of the adult women hold positions where food is supplied by their employers. Boston has the highest percentage of youthful workers who are earning a money wage, but the large number of adult women who are domestic servants, boarding and lodging-house keepers and nurses lowers the proportion of those receiving no food as a part of their compensation below the average for the 8 largest cities.

The American standard of living is frequently given a conspicuous place in the discussion of subjects like those considered in this study, yet less than one-fourth of the working women found in the 8 largest

cities, and but little over one-fifth of those living in Boston, are native-born whites of native-born parents. In Boston, New York, Chicago and Cleveland about three-fourths of the women in gainful occupations are of foreign or mixed parentage. These women with family traditions and habits brought from foreign lands suffer from the double strain of industrial and dietary readjustment. Too little

TABLE 2. — *Number and Per Cent. of Females engaged in Gainful Occupations in the Eight Largest Cities in the United States who are not receiving Food as Part of their Wages, classified by Age Groups.*[1] *Based on the United States Census of 1910.*

CITIES.	TOTAL FEMALES 14 YEARS AND OVER.			FEMALES 14 YEARS AND UNDER 21.			FEMALES 21 YEARS AND OVER.		
	In Gainful Occupations.	NOT RECEIVING FOOD AS PART OF WAGE.		In Gainful Occupations.	NOT RECEIVING FOOD AS PART OF WAGE.		In Gainful Occupations.	NOT RECEIVING FOOD AS PART OF WAGE.	
		Number.	Per Cent.		Number.	Per Cent.		Number.	Per Cent.
The 8 cities, . .	1,379,734	1,042,921	75.6	427,836	365,356	85.4	951,898	677,565	71.0
Boston, . .	96,283	70,362	73.1	20,302	17,945	88.4	75,981	52,417	69.0
Baltimore, . .	77,445	57,287	74.0	20,979	17,061	81.3	56,466	40,226	71.2
Philadelphia, .	199,993	149,378	74.7	58,686	51,683	88.1	141,307	97,695	69.1
New York, . .	585,571	440,910	75.2	183,319	159,760	84.8	397,252	281,150	70.8
Chicago, . .	236,615	187,615	79.3	81,133	71,240	87.8	155,482	116,375	74.8
St. Louis, . .	77,510	58,943	76.0	23,407	19,660	84.0	54,103	39,283	72.6
Cleveland, . .	54,742	43,189	78.9	19,312	16,439	85.1	35,430	26,750	75.5
Pittsburg, . .	51,575	35,237	68.3	15,698	11,568	73.7	35,877	23,669	66.0

[1] This classification excludes servants, midwives and nurses (not trained), housekeepers and stewardesses, boarding and lodging-house keepers, and trained nurses.

attention has been given to the difficulties that must arise when bodily needs created by the conditions of an Old World environment must be satisfied with supplies found in American markets.

COST OF FOOD IN BOSTON.

A study of the retail prices collected by the Federal Bureau of Labor Statistics shows that the cost of food in Boston is from 3 to 16 per cent. higher than in other large cities of the United States. An exhaustive investigation is needed to determine the complex factors entering into retail prices. At present no reasonable explanations can be offered for many of the variations shown in the table of index numbers (Table 4).

The variations in the cost of a bill of groceries required to feed a working woman for four weeks show this same difference between Boston and the other large cities (Table 5). An average menu was

TABLE 3. — *Number and Per Cent. of Females Ten Years of Age and Over, in Gainful Occupations in the Eight Largest Cities of the United States, classified by Color, Nativity and Parentage. Based on the United States Census of 1910.*

CITIES.	TOTAL IN GAINFUL OCCUPATIONS.		NATIVE WHITE OF NATIVE PARENTAGE.		WHITE, FOREIGN OR MIXED PARENTAGE.						NEGRO.	
					TOTAL.		NATIVE BIRTH.		FOREIGN BIRTH.			
	Number.[1]	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
The 8 cities, ...	1,381,926	100.0	308,991	22.4	970,670	70.2	481,688	34.8	488,982	35.4	101,908	7.4
Boston, ...	96,326	100.0	21,057	21.9	71,820	74.5	32,565	33.8	39,255	40.7	3,425	3.6
Baltimore, ...	78,184	100.0	28,456	36.4	24,713	31.6	16,292	20.8	8,421	10.8	25,007	32.0
Philadelphia, ...	200,298	100.0	66,742	33.3	110,988	55.4	61,886	30.9	49,102	24.5	22,535	11.3
New York, ...	586,193	100.0	93,266	15.9	466,387	79.6	189,739	32.4	276,648	47.2	26,352	4.5
Chicago, ...	236,811	100.0	43,677	18.4	184,188	77.8	107,567	45.4	76,621	32.4	8,880	3.8
St. Louis, ...	77,628	100.0	27,726	35.7	40,033	51.6	30,462	39.2	9,571	12.4	9,848	12.7
Cleveland, ...	54,808	100.0	12,278	22.4	40,935	74.7	24,275	44.3	16,660	30.4	1,582	2.9
Pittsburg, ...	51,678	100.0	15,789	30.5	31,606	61.2	18,902	36.6	12,704	24.6	4,279	8.3

[1] The proportion of this number in the 8 cities who were between ten and thirteen years of age was only one-fifth of 1 per cent. Three hundred and fifty-seven women of parentage other than negro and white are not included in the tabulation.

TABLE 4. — *Index Numbers showing Variations in Retail Prices of the Principal Articles of Food in the Eight Largest Cities of the United States on June 15, 1915. Prices in Boston used as the Base.*[1]

COMMODITIES.	CITIES.							
	Boston.	Baltimore.	Chicago.	Cleveland.	New York.	Philadelphia.	Pittsburg.	St. Louis.
Combined index numbers,	100	87	91	91	97	96	94	84
Foods containing much protein: —								
All proteins combined,	100	83	89	88	92	94	93	83
Chuck roast, per pound,	100	91	93	97	92	101	95	92
Rib roast, per pound,	100	74	85	82	91	87	85	79
Round steak, per pound,	100	67	66	68	77	79	73	74
Sirloin steak, per pound,	100	72	74	73	77	86	80	75
Ham, smoked, per pound,	100	93	113	88	88	116	121	92
Pork chops, per pound,	100	86	88	97	101	102	96	85
Leg of lamb, per pound,	100	81	88	87	72	88	92	84
Hens, per pound,	100	83	79	85	88	94	100	75
Salmon, per can,	100	79	111	94	109	91	94	85
Eggs, per dozen,	100	70	75	83	95	85	74	66
Cheese, American, per pound,	100	98	97	100	96	101	97	85
Milk, per quart,	100	100	91	88	102	91	105	91
Beans, per pound,	100	85	96	100	112	99	98	92
Foods containing starch and similar carbohydrates: —								
Cereals combined,	100	86	88	90	94	87	92	84
Corn meal, per pound,	100	69	82	83	94	76	85	74
Flour, wheat, ⅛ barrel bag,	100	90	85	92	94	90	94	83
Rice, per pound,	100	100	97	95	94	96	97	94
Foods characterized by sugars: —								
Sugars combined,[2]	100	97	102	101	101	101	103	98
Prunes, per pound,	100	97	107	106	111	106	102	104
Raisins, per pound,	100	98	103	92	100	100	103	93
Sugar, granulated, per pound,	100	96	95	104	93	96	104	97
Fatty foods: —								
Fatty foods combined,	100	95	102	102	98	103	103	89
Bacon, smoked, per pound,	100	86	113	103	97	103	112	95
Butter, per pound,	100	107	93	99	97	112	101	94
Lard, per pound,	100	93	100	103	101	95	95	79
Foods containing mineral substances and organic acids: —								
Vegetables and fruits combined,	100	85	87	90	109	100	89	78
Corn, per can,	100	70	78	81	99	87	71	64
Onions, yellow, per pound,	100	86	83	87	99	85	102	67
Oranges, per dozen,	100	83	89	91	105	94	92	83
Peas, per can,	100	77	85	97	104	90	80	74
Potatoes, per peck,[3]	100	119	93	93	155	157	108	103
Tomatoes, per can,	100	77	93	91	90	89	78	75
Beverages having no nutritive value: —								
Beverages combined,	100	86	93	84	84	97	92	86
Coffee, per pound,	100	71	90	88	86	89	82	73
Tea, per pound,	100	100	95	79	81	104	102	99

[1] This table was prepared from data published in Bulletin No. 184 of the United States Bureau of Labor Statistics. The prices were collected from retail dealers selling largely to the families of wage earners, the number of dealers reporting varying from 4 to 15. In preparing this table we obtained the arithmetic average of the prices quoted on June 15, 1915, and then used the Boston prices as the base on which to calculate the percentages of variation in the other 7 cities. Between June, 1915, and March, 1917, there was a general advance in prices of 33 per cent.

[2] This rough classification of foods follows a plan suggested by C. F. Langworthy. (Scientific Monthly, II., p. 303, March, 1916.) Obviously many of the food items belong in several groups, as the various meats contain much fat, prunes and raisins are valuable for their mineral substances, potatoes contain carbohydrates and protein, and the cereals supply both proteins and mineral substances.

[3] These numbers were based on the first six months of 1915.

obtained by tabulating the data given on 77 schedules which reported the food eaten by working women for the 21 meals of one week. The average number of times in which different food items appeared was as follows: —

Meat,	8.3	Cake,	4.9
Fish,	2.1	Pastry,	2.3
Eggs,	2.4	Pudding,	4.5
Sandwiches,	1.7	Salad,	1.9
Cereal,	3.7	Coffee,	4.5
Bread,	15.2	Tea,	3.5
Soup,	3.4	Cocoa,	2.1
Fruit,	8.2	Milk,	1.7
Vegetables,	14.4		

If a corresponding list of foods is selected from those whose prices are reported by the Bureau of Labor Statistics, and the different items are distributed in menus for one week, a bill of fare like the following will result: —

	Breakfast.	Lunch.	Supper.
Monday,	Stewed prunes. Bacon and egg. Bread and butter. Coffee.	Lamb stew (potatoes and onions). Cabinet pudding.	Stewed onions. Bread and butter. Cold ham. Cake. Milk.
Tuesday,	Orange. Cornmeal mush. Coffee.	Roast beef hash. Corn or peas. Bread and butter. Pie.	Potatoes. Prunes. Cocoa. Bread and butter.
Wednesday,	Orange. Rice. Tea.	Country sausage. French-fried potatoes. Indian pudding. Bread and butter.	Bread and butter. Canned corn. Rice pudding. Milk.
Thursday,	Orange. Egg. Bread and butter. Coffee.	Cold ham. Bread and butter. Rice pudding.	Beef stew (onions and potatoes). Cake. Tea.
Friday,	Orange. Rice. Coffee.	Beans. Bread and butter. Stewed tomatoes. Pie.	Soup. Cheese.[1] Potato salad. Bread and butter. Cake.
Saturday,	Orange. Egg. Bread and butter. Tea.	Roast beef. Mashed potatoes. Cake. Bread and butter.	Soup. Canned peas. Cheese.[1] Bread and butter. Cake.
Sunday,	Orange. Cornmeal mush. Coffee.	Soup. Creamed chicken on toast. Potatoes. Peas. Rice pudding. Bread and butter.	Bread and butter. Cocoa. Potato salad. Chicken sandwich.

[1] As prices for fish are not quoted in the Labor Bureau bulletins reporting retail prices, cheese appears twice in place of fish which occurs in the schedules.

TABLE 5. — *Retail Prices in the Eight Largest Cities of the United States of Groceries required to furnish an Average Menu for a Working Woman for Twenty-eight Days.*

COMMODITIES.[1]	CITIES.							
	Boston.	Baltimore.	Chicago.	Cleveland.	New York.	Philadelphia.	Pittsburg.	St. Louis.
Total cost,	$7 77	$6 84	$6 96	$7 02	$7 50	$7 54	$7 32	$6 44
Proteins combined,	3 25	2 74	2 86	2 79	2 99	3 05	3 10	2 63
Rib roast, 2 pounds,	49	37	42	40	45	43	42	39
Ham, smoked, 2 pounds,	49	45	55	43	43	57	59	45
Leg of lamb, 1 pound,	27	22	23	23	19	23	25	22
Hens, 2 pounds,	50	41	39	42	44	47	50	37
Eggs, 2 dozen,	66	46	49	54	63	56	49	44
Cheese, 1 pound,	24	24	23	24	23	24	23	21
Milk, 6 quarts,	53	53	48	46	54	48	55	48
Beans, 1 pound,	07	06	07	07	08	07	07	07
Starches combined,	74	66	64	67	70	66	70	62
Corn meal, 2 pounds,	07	05	06	06	07	06	06	05
Flour, wheat, 12¼ pounds,	57	51	49	52	54	51	54	48
Rice, 1 pound,	10	10	09	09	09	09	10	09
Sugars combined,	53	51	54	56	54	54	54	53
Prunes, 2 pounds,	26	25	28	28	29	28	26	27
Sugar, 4 pounds,	27	26	26	28	25	26	28	26
Fatty foods combined,	1 14	1 20	1 07	1 13	1 11	1 26	1 14	1 06
Butter, 3 pounds,	1 06	1 13	99	1 05	1 03	1 19	1 07	1 00
Lard, ½ pound,	08	07	08	08	08	07	07	06
Vegetables and fruits combined,	1 87	1 54	1 63	1 67	1 96	1 81	1 63	1 41
Corn, 2 cans,	28	20	22	23	28	25	20	18
Onions, 3 pounds,	13	11	11	11	13	11	13	09
Oranges, 2 dozen,[2]	75	60	66	66	76	68	68	56
Peas, 2 cans,	28	22	24	23	29	26	23	21
Potatoes, 1 peck,[3]	18	22	17	17	23	29	20	19
Tomatoes, 2 cans,	25	19	23	22	22	22	19	18
Beverages combined,	24	19	22	20	20	22	21	19
Coffee, ½ pound,	17	12	15	15	14	15	14	12
Tea, ⅛ pound,	07	07	07	05	06	07	07	07

[1] This bill of groceries will furnish a little over 2,500 calories per day. The prices are averages of those quoted in Bulletin No. 184, United States Bureau of Labor Statistics. In March, 1917, prices were 33 per cent. higher than those used in computing this table.

[2] The average prices of California and Florida oranges were used.

[3] Numbers based on first six months of 1915.

A woman living alone would find it difficult to prepare such a bill of fare, as she would be unable to bake bread, cake and pastry. She could not make an economical use of canned vegetables, meat stews or roasts. The women who furnished the schedules usually purchased one or more meals each day at restaurants or boarding houses, and in some cases prepared breakfasts and suppers in their rooms. When obtained in these ways their food for one week cost them about $3.65. However, the prices of raw materials are important factors in determining all charges for food, and no doubt their higher cost in Boston makes it more difficult for working women to obtain adequate nourishment.

CHAPTER II.

THE NOON LUNCHEON.

Method and Scope of the Investigation.[1]

The first step taken in a survey of the noon luncheon in Boston was to compile from the registers and directories of 1915 a card catalogue of business firms, listing the names and addresses of firms engaged in industries in which, according to the Federal Occupation Census of 1910, women in Boston are principally employed. By the co-operation of the Massachusetts Board of Labor and Industries the addresses of establishments employing 10 or more women and girls were obtained from lists prepared by the factory inspectors. There are 381 of these larger establishments with a total of 22,563 women and girls employed in the city proper, which is bounded in the main by Atlantic Avenue, Dover, Berkeley and Charles streets. It was manifestly impossible to include in a noon luncheon survey all of these 381 firms, since the method of investigation permitted the visiting at the noon hour of but one firm a day, and the time of the survey was confined to the winter months, December to March. It was decided, therefore, to limit the survey to a study of conditions in the principal factory district and in the shopping or mercantile districts.

The 702 women and girls interviewed in these factory and mercantile districts of Boston city proper include 462 in manufacturing pursuits, 137 in mercantile pursuits and 103 in office work. The factory district in which the intensive part of the study was made is represented by 521 schedules, or 26 per cent. of the women and girls employed in its 52 factories and factory offices. In the mercantile district 7 of the largest department stores which have employees' lunch rooms were visited, and 181 schedules were secured from the women and girls therein employed. Although this number of interviews is small in proportion to the total number of employees in these stores, at least 25 schedules were obtained at random from each place. For purposes of comparison with the factory schedules they

[1] For forms of inquiry, see Appendix A, Nos. 2 and 3.

TABLE 6. — *Methods by which the Women and Girls interviewed obtained their Noon Lunches, distributed by Kinds of Employment.*

KINDS OF EMPLOYMENT.	TOTAL WOMEN.		WOMEN WHO BOUGHT LUNCHEON IN TOWN.						WOMEN WHO BROUGHT LUNCHES FROM HOME.	
			TOTAL.		Five or Six Days a Week (Number).	Three or Four Days a Week (Number).	One or Two Days a Week (Number).	Occasionally (Number).	FIVE OR SIX DAYS A WEEK.	
	Number.	Per Cent.	Number.	Per Cent.					Number.	Per Cent.
All employments,	677[1]	100.0	257	38.0	137	23	32	65	420	62.0
Manufacturing pursuits,	441	100.0	87	19.7	41	8	15	23	354	80.3
Mercantile pursuits,	135	100.0	110	81.5	61	14	9	26	25	18.5
Office work,	101	100.0	60	59.4	35	1	8	16	41	40.6

[1] Schedules of 25 women and girls who go home to lunch or who eat no lunch are omitted from this table. Total number, 702.

afford a true picture of the luncheon resources and of the life of the employees at the noon hour. Comparison of the living arrangements of this group and of those in retail stores made by the Minimum Wage Commission[1] shows them to be a typical group. One-half (50 per cent.) of the factory women were sewing on women's wearing apparel, one-sixth (17.3 per cent.) on men's clothing, and one-tenth (11.5 per cent.) on hats and millinery. One hundred and forty-five women were employed in 4 of the factory offices.

TABLE 7. — *Places where Noon Luncheons were eaten by Women and Girls engaged in Manufacturing and Mercantile Pursuits and in Office Work in Boston City Proper.*

PLACES OF EATING LUNCH.	TOTAL.		WOMEN AND GIRLS ENGAGED IN —					
			MANUFACTURING PURSUITS.		MERCANTILE PURSUITS.		OFFICE WORK.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
All the places,	702	100.0	462	100.0	137	100.0	103	100.0
Commercial lunch rooms,	127	18.1	74	16.0	16	11.7	37	35.9
Employees' cafeterias,	153	21.8	16	3.5	110	80.3	27	26.2
Employees' dining rooms,	25	3.6	1	.2	9	6.6	15	14.6
Employees' dressing rooms,	9	1.3	–	–	–	–	9	8.7
Dining tables in workrooms,	47	6.7	47	10.2	–	–	–	–
Power sewing machines,	186	26.5	177	38.3	–	–	9	8.7
Work tables or desks in workrooms or offices.	130	18.5	126	27.3	–	–	4	3.9
Home,	24	3.4	20	4.3	2	1.4	2	2.0
No lunch,	1	.1	1	.2	–	–	–	–

The method followed throughout the study was to secure a personal interview with the manager or employer; obtain permission to talk with employees while at their lunch; secure individual schedules from the women and girls at that time; and personally inspect the accommodations provided for eating and resting at the noon hour. Commercial lunch rooms of the cafeteria or counter-service type which were patronized by those workers who were buying lunches in town were visited, their managers interviewed and their equipment observed and scheduled. A similar study was made

[1] Massachusetts Minimum Wage Commission, Wages of Women in Retail Stores in Massachusetts, Bulletin No. 6, March, 1915, p. 45.

of the employees' cafeterias of the large department stores, and individual schedules were secured from women in a variety of mercantile establishments. By means of a questionnaire, information was obtained from 33 firms in cities other than Boston.

Methods of obtaining and serving Noon Lunches.

The majority of factory workers brought their lunches from home, while the mercantile and office employees showed a greater disposition to buy lunches. Of the 702 women and girls interviewed, 420 brought lunches from home, 257 bought them in town, 24 went home at noon for dinner and 1 ate no luncheon. Eighty (80.3) per cent. of those engaged in manufacturing (Table 6) brought their lunches five or six days a week, and only 20 (19.7) per cent. bought lunches in town. These percentages were reversed (18.5 and 81.5) for women in mercantile pursuits. Sixty (59.4) per cent. of the factory and department store office women bought lunches in town, and 40 (40.6) per cent. brought lunches from home.[1]

When the power was shut down at 12 o'clock two-thirds (65.6 per cent.) of the factory women remained at their places of work. They spread their lunches on the machines or tables at which they had been stitching garments, sewing hats or furs, ironing, pressing, drafting, cutting or packing goods. Their food often came in contact with the goods being manufactured, or else with the tops of the machines and tables. In some places machine oil, dust, chalk, lint and trimmings of cloth were present, and where fur garments were being made or repaired there was danger of contact with particles of arsenic used in the preservation of the pelts. Three of the 52 firms had work tables cleared and covered with wrapping paper or oil cloth.

The large department stores of Boston have made generous provisions for feeding their employees, hence the high percentage (80.3) of mercantile workers who patronize these cafeterias. Only 1 of the factories made this provision, and but 3.5 per cent. of the factory workers were able to obtain hot food at cost. A partial luncheon service was found in 1 department store and 1 factory, where comfortable rooms with tables and gas or electric stoves were provided.

[1] These percentages are conservative for those who bring and maximum for those who buy, since only those who brought lunches for the entire week were counted as bringers of lunches. Women who had not purchased lunches within the week, but who said they sometimes went out to lunch, were counted as occasional buyers.

Matrons in charge kept these rooms clean and attractive. The employees prepared such hot dishes as they wished, using their own supplies. In 1 factory lunches were eaten in the coat or dressing room. Factory office workers usually patronized the commercial lunch rooms.

Factors determining the Bringing of Lunches.

Several factors determine the bringing of lunches. The most important of these are: —

1. The amount and kind of wages.
2. The length of the noon hour.
3. The character of the employment.
4. The nationality of the worker and of her parents.

Amount and Kind of Wages.

The wages of a woman factory worker rarely permit the purchase of a warm noon meal. Half of the women engaged in manufacturing (47.9 per cent.) reported their earnings for the previous week as less than $8, a fourth (23.8 per cent.) received $8 to $9, and three-fourths (72.2 per cent.) less than $9. Irregularity of employment makes the situation worse when earnings are distributed through the year. A pay-roll study made in 1915 by the United States Bureau of Labor Statistics [1] showed that of 708 women employed in 5 representative ready-to-wear dress and waist factories in Boston, 75.6 per cent. earned on an average less than $8, as compared with 47.9 per cent. in the present study, and that 83.4 per cent. earned less than $9 instead of 72.2 per cent. as reported for the one week covered in this investigation. Results similar to the Federal study were obtained in an investigation of 36 garment-making establishments located in 7 cities of the State, made by the Massachusetts Minimum Wage Commission in 1915.[2] The largest number of workers received $5 as an average wage instead of $8 as in the present survey.

A further study of the wages of the factory women shows that the piece workers, who were subject to a greater physical strain than those paid on a time-rate basis, were usually found in the lowest

[1] Regularity of Employment in the Women's Ready-to-Wear Garment Industries, United States Department of Labor, Bureau of Labor Statistics, October, 1915, Bulletin No. 183, pp. 67, 125.

[2] Wages of Women in Clothing Factories in Massachusetts, Massachusetts Minimum Wage Commission, September, 1915, Bulletin No. 9, pp. 23, 24.

wage groups. They were operating power-stitching and addressing machines, and were engaged in the semi-skilled processes of manufacturing, such as folding, ironing, pressing, pasting, labeling, packing, making bows and running ribbons, examining, stock checking and distributing. Only 26 stitchers and sewers and 4 of these semi-skilled workers earned more than $8 per week.[1] Evidently the women in manufacturing processes who are spending the most energy in the more exhausting kinds of employment are the ones who are least able to purchase lunches. Ninety-seven (97.3) per cent. of these low-wage piece workers ate cold lunches brought from home.

The majority of the women engaged in the occupations demanding less physical exertion were earning wages which permitted the occasional or regular purchase of a hot noon meal. Designers, forewomen and others in responsible positions, together with the factory office workers, reported $8 to $18 per week. The women employed in the department stores and the general office workers also were usually found in this higher wage group. The minimum wage in retail stores was fixed in 1915 at $8.50.[2] The managers of all the large department stores in Boston voluntarily agreed to establish this wage, so that approximately 11,000 of the women who are engaged in salesmanship in these stores are financially able to purchase lunches if they wish to do so. A study[3] of the wages of women in general office work made in 1914 by the Women's Educational and Industrial Union showed that for these workers also the situation is far better than it is for factory workers; the largest number were found in the $12 wage group, and 83.5 per cent. of them earned more than $8. Only 20 of the 111 women who bought lunches earned less than $8, and 3 of these were time workers at $7 a week.

While the necessity for economy was an important if not the chief reason which led so large a portion of the low-wage group to bring lunches from home, only a fifth (20.9 per cent.) of those interviewed gave this reason. Over a third (37.1 per cent.) of them said they disliked restaurant food or preferred home cooking (Table 10). However, the higher wage group, who were frequent patrons

[1] The Brush Makers' Wage Board of the Massachusetts Minimum Wage Commission reported in 1914 as follows: "Allowing for variations between individuals, the wage board is convinced that the sum required to keep alive and in health a completely self-supporting woman in Boston is in no case less than $8, and in many cases may rise to $9 or more." Second Annual Report, Massachusetts Minimum Wage Commission, p. 9.

[2] Massachusetts Minimum Wage Commission Bulletin No. 12, p. 11.

[3] Allinson, May. The Public Schools and Women in Office Service, Women's Educational and Industrial Union (Boston, 1914), pp. 113, 114.

TABLE 8. — *Amount and Kind of Wage and Length of Noon Hour of Women and Girls in Factories and Factory Offices, who brought Lunches from Home, or bought them in Town.*

WAGES.	Total Women.	WOMEN AND GIRLS WHO BROUGHT LUNCHES FROM HOME.					WOMEN AND GIRLS WHO BOUGHT LUNCHES IN TOWN.				
		Number.	KIND OF WAGE.		LENGTH OF NOON HOUR.		Number.	KIND OF WAGE.		LENGTH OF NOON HOUR.	
			Time.	Piece.	Thirty Minutes.	Forty-five to Sixty Minutes.		Time.	Piece.	Thirty Minutes.	Forty-five to Sixty Minutes.
Totals,	498[1]	387	170	217	118	269	111	81	30	16	95
Low wage,	223	203	63	140	75	128	20	13	7	2	18
Less than $5,	35	33	7	26	8	25	2	–	2	–	2
$5 and less than $6,	44	40	20	20	10	30	4	3	1	–	4
$6 and less than $7,	70	64	16	48	34	30	6	3	3	1	5
$7 and less than $8,	74	66	20	46	23	43	8	7	1	1	7
Living wage,	260	173	97	76	42	131	87	65	22	14	73
$8 and less than $9,	115	66	38	28	12	54	49	32	17	2	47
$9 and less than $10,	41	37	20	17	10	27	4	3	1	–	4
$10 and less than $11,	61	43	26	17	14	29	18	16	2	10	8
$11 and less than $12,	16	13	7	6	–	13	3	3	–	–	3
$12 and less than $13,	14	7	3	4	3	4	7	5	2	1	6
$13 and more,[2]	13	7	3	4	3	4	6	6	–	1	5
Wage not reported,	15	11	10	1	1	10	4	3	1	–	4

[1] From this table are omitted schedules of factory women who go home to dinner or have no luncheon.

[2] Three reported $13, 1 reported $14, 3 reported $15, 1 reported $16, 5 reported $18.

TABLE 9. — *Reasons for buying Lunches in Town given by Women and Girls in Factories and Factory Offices, classified according to Wages and Length of Noon Hour.*

REASONS.	TOTAL WOMEN.		WOMEN AND GIRLS REPORTING WAGES OF —				WOMEN AND GIRLS REPORTING NOON HOUR OF —			
			LESS THAN $8.		$8 TO $18.		THIRTY MINUTES.		FORTY-FIVE TO SIXTY MINUTES.	
	Number.	Per Cent.[1]	Number.	Per Cent.[1]	Number.	Per Cent.[1]	Number.	Per Cent.[1]	Number.	Per Cent.[1]
All reasons,	111	100.0	20	100.0	91	100.0	16	100.0	95	100.0
Occasional, because of shortness of noon hour,	8	10.4	–	–	8	12.5	7	43.8	1	1.6
Occasional, because of cost of commercial lunches,	15	19.5	3	23.1	12	18.8	2	12.5	13	21.3
Dislike of cold, dry lunches,	13	16.9	2	15.4	11	17.2	2	12.5	11	18.1
Preference for hot food and variety,	7	9.1	–	–	7	10.9	2	12.5	5	8.2
Inconvenience of putting up lunch,	20	25.9	7	53.8	13	20.3	2	12.5	18	29.5
Preference for change and exercise,	9	11.7	1	7.7	8	12.5	1	6.2	8	13.1
Lunch not included in board,	3	3.9	–	–	3	4.7	–	–	3	4.9
Other reasons,	2	2.6	–	–	2	3.1	–	–	2	3.3
No reason reported,	34	–	7	–	27	–	–	–	34	–

[1] Omitting those not reported.

TABLE 10. — *Reasons for bringing Lunches from Home given by Women and Girls in Factories and Factory Offices, classified according to Wages and Length of the Noon Hour.*

REASONS.	TOTAL WOMEN.		WOMEN AND GIRLS REPORTING WAGES OF —				WOMEN AND GIRLS REPORTING NOON HOUR OF —			
			LESS THAN $8.		$8 TO $18.		THIRTY MINUTES.		FORTY-FIVE TO SIXTY MINUTES.	
	Number.	Per Cent.	Number.	Per Cent.[1]	Number.	Per Cent.[1]	Number.	Per Cent.[1]	Number.	Per Cent.[1]
All reasons,	387	100.0	203	100.0	184	100.0	118	100.0	269	100.0
Shortness of noon hour,	47	18.1	23	17.4	24	18.9	37	40.6	10	5.9
Cost of commercial lunches,	54	20.9	31	23.5	23	18.1	10	11.0	44	26.2
Preference for home cooking,	72	27.8	34	25.8	38	29.9	16	17.6	56	33.3
Dislike of restaurant food,	24	9.3	14	10.6	10	7.8	5	5.5	19	11.3
Personal inconvenience,	20	7.7	8	6.1	12	9.4	7	7.7	13	7.7
Exertion of going out,	5	1.9	1	.7	4	3.2	1	1.1	4	2.4
Lunch included in board,	9	3.5	5	3.8	4	3.2	1	1.1	8	4.8
Unused to restaurants,	20	7.7	16	12.1	4	3.2	14	15.4	6	3.6
Other reasons,	8	3.1	–	–	8	6.3	–	–	8	4.8
No reason reported,	128	–	71	–	57	–	27	–	101	–

[1] Omitting those not reported.

of cafeterias and restaurants, said they bought the noon meal because they disliked cold, dry lunches, or preferred hot food, or found it inconvenient to pack a lunch (Table 9).

Length of the Noon Hour.

The third (33.6 per cent.) of the women whose low wages prevented the purchase of lunches were also the workers who were allowed the shortest noon intervals. "There's no time to go," one worker said, "and I always spend 25 cents which I cannot afford." Thirty minutes, the minimum legal requirement,[1] was reported by 30.8 per cent. of the semi-skilled workers and by 36.1 per cent. of the machine stitchers (Table 11). "I would like to go, and used to often when I had an hour in another factory," said one of these women. A number of managers claimed that the workers chose the short noon period in order that they might have Saturday afternoon free, but it is hardly justifiable to claim that the time gained was needed for work, when a recent survey [2] has shown that most of these women were employed on an average of 38 to 49 hours a week, and that only 5 out of 446 employees in the Massachusetts clothing industry averaged as many as fifty-four hours per week.

Only 16 who bought lunches have the short period at noon (Table 9). The schedules of 8 of these show that they sent an office messenger boy to commercial restaurants before 12 o'clock to purchase the noon meal which they ate in the factory. By clubbing together they found that they could have greater variety at less expense. Eight who had thirty minutes left the building, but only 1, a time worker who reported $10 a week for wages, bought lunch regularly. Three of the 8 patronized a restaurant across the street from the factory, and 5 walked to restaurants less than three blocks away.

The factory office and saleswomen usually had a 60-minute noon hour (Table 11), as did also the 181 women interviewed in the department stores. These were more fortunate than those engaged in the low-wage manufacturing processes in that they had opportunities for rest and relaxation. The full noon hour is the custom with women in office positions and salesmanship, and they have never been asked to sacrifice any of their noon time, even when they have

[1] General Acts of Massachusetts, 1909, chapter 514, section 68.

[2] Massachusetts Minimum Wage Commission, Wages of Women in Women's Clothing Factories in Massachusetts, Bulletin No. 9, September, 1915, p. 29.

been given the half day off on Saturday. The reduction of the legal hours of employment to an eight-hour day, or else an extension of the legal requirement for the noon period to sixty minutes, is necessary in order to restore the noon hour of the factory workers to its traditional length.

Character of Employment.

The character of the work performed, as well as the wages and the length of the noon hour, influences the leaving of the building at noon either for food or exercise. Manufacturing processes require or permit the wearing of work clothes or aprons, and it takes "too much time" or is "too much trouble" to doff them for street garments, especially if there is but thirty minutes for lunch. Nine per

Table 11. — *Classification of Women and Girls employed in the Principal Factory District of Boston according to Occupation and the Length of the Lunch Period.*

Kinds of Employment.	Total.		Women and Girls having for Noon Hour —					
			Thirty minutes.		Forty-five minutes.		Sixty minutes.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
All occupations,	521	100.0	134	25.7	111	21.3	276	53.0
Manufacturing pursuits,	447	100.0	133	29.7	95	21.3	219	49.0
Stitchers and other power machine operators.	277	100.0	100	36.1	56	20.2	121	43.7
Hand sewers and finishers,	89	100.0	10	11.3	16	17.9	63	70.8
Other semi-skilled workers,	65	100.0	20	30.8	16	24.6	29	44.6
Designers, cutters, managers, etc.	16	100.0	3	18.8	7	43.7	6	37.5
Factory saleswomen,	3	100.0	–	–	–	–	3	100.0
Office work,	71	100.0	1	1.4	16	22.5	54	76.1

cent. more stitchers and hand sewers never leave than workers in the semi-skilled processes, and 12 per cent. more piece workers than time workers. "We have to plow right in and make what we can, and I'd rather rest than go out," said one of the workers. Taken together, more than 50 (51.2) per cent. of those in manufacturing processes never leave the building, whereas office women, sales-

TABLE 12. — *Use of Spare Time after Luncheon by Women and Girls in Factories and Factory Offices, distributed according to Kind of Employment.*

USES OF SPARE TIME.	TOTAL WOMEN.		POWER-MACHINE OPERATORS.		SEWERS AND SEMI-SKILLED WORKERS.		DRAFTERS, MANAGERS, SALES AND OFFICE WOMEN.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
All uses,	521	100.0	277	53.1	154	29.6	90	17.3
Talking with others,	122	100.0	68	55.8	44	36.0	10	8.2
Reading newspapers, magazines and books.	46	100.0	29	63.0	16	34.8	1	2.2
Resting at tables or machines,	16	100.0	12	75.0	4	25.0	–	–
Sewing, embroidering and crocheting.	19	100.0	12	63.2	6	31.6	1	5.2
Working,	39	100.0	24	61.5	13	33.3	2	5.2
Walking for air and exercise,	56	100.0	17	30.3	18	32.1	21	37.6
Doing errands or shopping,	40	100.0	18	45.0	13	32.5	9	22.5
Dancing and singing,	15	100.0	3	20.0	7	46.7	5	33.3
No time to spare,	116	100.0	75	64.7	13	11.2	28	24.1
Other uses,	10	100.0	3	30.0	5	50.0	2	20.0
Not reported,	42	100.0	16	38.1	15	35.7	11	26.2

TABLE 13. — *Use of Spare Time after Luncheon by Women and Girls in Department Stores of Boston City Proper.*

USES OF SPARE TIME IN DEPARTMENT STORES.	Number.	Per Cent.
All uses,	181	100.0
Walking,	62	34.3
Errands or shopping,	21	11.6
Dancing or singing,	4	2.2
Reading newspapers,	37	20.4
Talking with others,	30	16.6
Resting,	13	7.2
Sewing, embroidering, crocheting,	5	2.8
No spare time,	3	1.6
Not reported,	6	3.3

women and those in responsible positions reported that they usually left the building at noon.

The quieter ways of spending spare time reported by the machine stitchers showed their need of this period of relaxation. Resting at tables or machines, reading newspapers, sewing for themselves, embroidering, crocheting and conversing were the uses of spare time reported by them (Table 12). Stitchers, who are usually piece workers, are tempted to use spare time at noon for work; of the 39 who reported this use of time 29 were power-machine stitchers. Sewers and semi-skilled workers avail themselves about equally of the restful and active recreations, and those in responsible positions and office work go out regularly for exercise or lunch or shopping, or else dance and sing if they remain in the factory. One hundred and sixteen, or more than 22.3 per cent. of the factory women, had no spare time after luncheon, and all of these either had thirty minutes for the noon hour or used the longer period to go home to dinner.

Without exception all the women interviewed in the department stores had a full hour at noon, and the use made of spare time after eating luncheon depended very much upon the amount of space devoted to the comfort and accommodation of the employees and upon the adequacy of its equipment. Often the women sat reading or chatting at the lunch tables, but this could not be done if the room was small, for successive relays of employees made it necessary for those who came first to depart promptly. One store had a lunch room large enough so that the employees could remain at the tables if they wished, and there was also room at one end for groups to dance, play the piano and sing. Five of the department stores had rest or recreation rooms in addition to the lunch rooms. Thirty-six per cent. of the women reported that they never left the building at noon, and as many more (37.5 per cent.) only went occasionally.

Half of the women (47 per cent.) occupied themselves with the quieter recreations, such as reading newspapers, talking with friends, resting, sewing, embroidering or crocheting, and half (48.1 per cent.) went for walks, did errands or shopping, or danced and sang in the recreation rooms (Table 13). Most of the women named two uses of spare time, and these secondary uses are slightly in favor of the restful recreations. No one used her spare time in working as was done by a number (39) of the women in the factories. Those who

TABLE 14. — *Women and Girls in Factories, Factory Offices and Department Stores, classified according to Method of Obtaining the Noon Luncheon, Parentage and Nativity.*

PARENTAGE AND NATIVITY.	Total Women.	WOMEN IN FACTORIES AND FACTORY OFFICES WHO —								WOMEN IN DEPARTMENT STORES WHO —							
		TOTAL.		BROUGHT LUNCHES.		BOUGHT LUNCHES.		WENT HOME.		TOTAL.		BROUGHT LUNCHES.		BOUGHT LUNCHES.		WENT HOME.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
All parentage,	701[1]	520	100.0	387	74.4	110	21.2	23	4.4	181	100.0	33	18.6	146	80.7	2	1.1
All native born,	380	228	100.0	158	69.3	66	28.9	4	1.8	152	100.0	26	17.1	125	82.2	1	.7
English speaking parentage,	314	185	100.0	126	68.1	57	30.8	2	1.1	129	100.0	24	18.6	104	80.6	1	.8
Non-English speaking parentage,	66	43	100.0	32	74.4	9	20.9	2	4.7	23	100.0	2	8.7	21	91.3	–	–
All foreign born,	198	175	100.0	137	78.2	19	10.9	19	10.9	23	100.0	4	17.4	18	78.3	1	4.3
English speaking parentage,	45	30	100.0	22	73.3	8	26.7	–	–	15	100.0	3	20.0	12	80.0	–	–
Non-English speaking parentage,	153	145	100.0	115	79.3	11	7.6	19	13.1	8	100.0	1	12.5	6	75.0	1	12.5
No data,	123	117	100.0	92	78.6	25	21.4	–	–	6	100.0	3	50.0	3	50.0	–	–

[1] One excluded who ate no lunch.

work in department stores in Boston are receiving the legal wage, and an employee cannot increase her weekly wages by working at noon.

Nationality.

Nationality, as well as wages and the length of the noon hour, was a factor in determining the method of obtaining the noon luncheon. In some cases there were preferences for certain kinds of bread, fish, meats or vegetables characteristic of national diets, and in others the diet was restricted by religious requirements. In both factories and department stores there were well-marked differences between the native born and the foreign born and those of English speaking and non-English speaking parentage.

The native born show a greater disposition to purchase their lunches; 66, or 28.9 per cent., of those working in factories, and 125, or 82.2 per cent., of those in department stores provided the noon meal in this way (Table 14). Evidently the native born rarely live near their places of employment, as only 4 of the factory workers and 1 department store worker went home at noon. Of the native born group the factory workers of English-speaking parentage show 10 (9.9) per cent. more buying lunches than the factory workers of non-English speaking parentage. A somewhat surprising variation is found in the case of the small group of department store workers of non-English speaking parentage; 91.3 per cent. of these buy lunches as compared with 80.6 per cent. of those of English-speaking parentage.

The women of foreign birth of non-English speaking parentage usually brought their lunches or went home at noon. This was true of nearly 90 per cent. of the foreign born factory workers, as 137, or 78.2 per cent., brought lunch, and 19, or 10.9 per cent., went home. The foreign born factory workers of English speaking parentage buy lunches more frequently than do those of non-English speaking parentage. Certain restaurants in the factory district were patronized by 16.3 per cent. of Jews, and all of them were patronized by women of English speaking parentage, but none of the Italians, Swedes, Germans, Austrians, French, Greeks, Roumanians, Portuguese, Spanish or Bohemians patronized the restaurants, and nearly all the workers of Syrian birth and parentage lived in the South End near enough to go home to dinner.

Two explanations may account for these differences between the native and foreign born and the English and non-English speaking groups. Foreign women show a greater tendency to fall into the low-wage, short noon hour groups, and were found among the factory piece workers rather than office and store workers. It seems probable, also, that their greater timidity or conservatism would prevent their going to public eating places. This last factor would not be present in the case of the few department store workers who could buy lunches at the employees' cafeteria.

In summing up the factors determining the bringing or buying of lunches we find: —

1. That the low-wage piece workers usually bring lunches from home, while the higher-wage office and department store workers are more apt to buy their lunches.

2. The short intermission at noon among the factory workers makes it impossible to go out to buy a lunch, and prevents proper rest and recreation.

3. Piece workers and power-machine operators seldom or never leave the factory at noon either for food or exercise, and are reluctant to make the change from work to street clothing.

4. Foreign born women and those of non-English speaking parentage show a greater disposition to bring lunches, while the native born and those of English speaking parentage buy luncheon when the wage and length of noon hour permit.

Provisions for Heating or Supplementing the Lunches of Factory Workers.

When the power is switched off at 12 o'clock the women who go out to lunch hasten their departure, and the remainder bring forth their lunches from coat rooms or hand bags. Seated alone or in groups of three or four the workers set out their teapots, tumblers or cups, lunch wrappings, food and fruit, holding them in the lap or placing them on the work tables or machines.

The food of the 445 women who regularly or frequently brought lunches from home was put up chiefly in wrapping paper, waxed paper or paper bags. Paper and linen napkins were little used. The tin dinner pail and the black or plaid tin box are out of date. Office workers used more of the waxed paper than did those in manu-

facturing pursuits. The lunch as carried to-day is a paper-wrapped parcel similar to a shopping bundle. It can be disposed of entirely, and it avoids identifying the carrier as a wage earner. Half of these women (50 per cent.) reported putting up their own lunches, mothers put them up for a third (35.6 per cent.), aunts, sisters and other relatives put them up for 10 (10.5) per cent., and landladies for the remainder.

The extensive use of such cooking facilities as were provided proves that the women factory workers craved hot food. The proportion who prepared hot dishes varied with the adequacy of the cooking arrangements (Table 15). A gas range with a four-burner top and an oven, and two double-burner gas plates were found in one factory where 190 women were employed. Twenty-three women who ate lunches in this factory were interviewed, and 22 of these reported that they prepared tea or cocoa, cooked soups and vegetables and baked potatoes or apples. In two other firms that had two gas plates of three burners each, or one burner for each 11 employees, the facilities were used by more than 90 (91.4) per cent. of the

TABLE 15. — *Extent of Use of Cooking Facilities by Women and Girls working in Factories and Factory Offices.*

Cooking Facilities.	Establishments.	Employees.	Total Factory Schedules obtained.		Women who brought Lunches.			
					Number.	Not using Facilities.	using facilities.	
			Number.	Per Cent.			Number.	Per Cent.
Total,	49	1,782	521	100.0	445	233	212	47.6
Stoves (gas or electric): —								
1 plate,	15	438	146	28.0	118	84	34	28.8
2 plates,	6	137	55	10.6	42	22	20	47.6
3 plates,	6	364	75	14.4	63	19	44	69.8
4 plates,	3	161	36	6.9	35	5	30	85.7
6 plates,	2	131	35	6.7	35	3	32	91.4
Range (4-plate top and oven, also two 2-plate stoves).	1	190	24	4.6	23	1	22	95.7
Stove and oven (detachable),	1	10	6	1.1	6	2	4	66.7
Iron heaters (40 separate),	1	66	26	5.0	26	6	20	76.9
Toaster and teakettle,	1	20	10	2.0	9	3	6	66.7
No facilities,	13	265	108	20.7	88	88	–	–

workers. In addition to tea and soups, eggs, toast, cheese and creamed dishes were prepared. Various kinds of facilities were found in other factories and factory offices. In addition to gas stoves in the workroom, one had a hotwater tank, another a copper cauldron, another an aluminum kettle, and another an electric toaster and kettle. Most of the apparatus, however, was makeshift in character, and one-fifth (20.7 per cent.) of the women interviewed had no facilities whatever for heating water or warming over food.

Co-operative preparation of lunches was a method used in one of the factories where the number of employees was small. The forelady or some enterprising member of the group conferred with the others late in the forenoon as to what they should have for luncheon. The office boy was then sent to a near-by restaurant or grocery, the supplies were purchased, and when all was ready the group sat down at a table and ate the luncheon. In still another factory a kind of kitchenette was formed by the arrangement of the sink, stove and shelves. The manager purchased tea, coffee, sugar and canned goods for the workers at wholesale rates. These schemes of co-operative buying and preparation of lunches greatly reduced the expense and increased the attractiveness and sociability of the luncheon. This method of securing a lunch was possible wherever the cooking facilities were adequate, and where economic competition and social differences between the racial elements was not too keenly felt. In a number of places small groups of three or four women prepared tea, coffee or cocoa, or shared the expense of some special treat.

Kinds of Food brought from Home.

The influence of nationality is seen in the choice of the 33 kinds of food observed or reported in the lunch menus of the women in factories and factory offices. When it was possible to secure them, the menus of the day on which the interview occurred and of the day before were obtained. The group of 387 women who brought lunches five or six days of the week, and of 58 who brought them occasionally, reported 712 menus with 2,582 food items (Table 16). The characteristic number of food items for each menu was 4, averaging 3.5 for women of English speaking parentage and 3.7 for women of non-English speaking parentage. The typical lunch consisted of sandwiches, cake, fruit and tea. There is very little differ-

TABLE 16. — *Number of Times the Kinds of Foods appear in Lunch Menus of Women and Girls of English and Non-English Speaking Parentage working in Factories and Factory Offices who brought Lunches from Home.*

KINDS OF FOOD.	TOTAL TIMES KINDS OF FOOD APPEAR IN LUNCHES BROUGHT FROM HOME.		NUMBER OF TIMES THE KINDS OF FOOD WERE REPORTED IN LUNCH MENUS BY WOMEN OF —											
			ENGLISH SPEAKING PARENTAGE.						NON-ENGLISH SPEAKING PARENTAGE.						PARENTAGE NOT REPORTED.
	Number.	Per Cent.	Total.	American.	Irish.	Canadian.	English.	Scotch.	Total.	Russian or Polish (Jewish).	Italian.	German.	Swedish.	Others.	
All foods,	2,582	100.0	1,004	527	251	122	57	47	922	544	189	67	53	69	656
Soup,	18	.7	6	5	1	–	–	–	9	6	–	3	–	–	3
Sandwiches,	710	27.5	276	141	63	38	17	17	249	148	55	17	16	13	185
Meat,	380	–	164	81	39	19	12	13	105	53	27	14	7	4	111
Fish,	82	–	7	6	–	1	–	–	57	43	13	–	–	1	18
Egg,	98	–	38	18	13	3	2	2	41	30	4	–	3	4	19
Cheese,	94	–	34	18	5	9	1	1	39	20	10	2	3	4	21
Jelly or jam,	29	–	16	9	–	6	–	1	3	1	–	–	2	–	10
Peanut butter,	7	–	5	4	–	–	1	–	–	–	–	–	–	–	2
Others, not specified,	20	–	12	5	6	–	1	–	4	1	1	1	1	–	4
Vegetables,	121	4.7	44	29	7	3	3	2	48	7	30	5	–	6	29
Potatoes,	37	–	17	14	2	–	–	1	10	1	4	3	–	2	10
Peppers,	22	–	–	–	–	–	–	–	16	–	16	–	–	–	6
Onions,	11	–	–	–	–	–	–	–	11	1	10	–	–	–	–
Baked beans,	6	–	6	5	1	–	–	–	–	–	–	–	–	–	–
String beans,	6	–	4	4	–	–	–	–	1	1	–	–	–	–	1
Peas,	4	–	4	1	2	–	–	1	–	–	–	–	–	–	–
Others, not specified,	35	–	13	5	2	3	3	–	10	4	–	2	–	4	12
Bread and butter,	329	12.7	112	56	33	12	5	6	112	75	24	4	1	8	105
Dessert,	414	16.0	236	117	60	36	12	11	62	25	7	10	13	7	116
Cake,	244	–	137	73	27	25	7	5	45	22	6	8	3	6	62
Pie,	98	–	53	27	20	7	2	2	12	3	–	1	8	–	28
Doughnuts,	23	–	12	4	5	1	1	1	2	–	1	–	–	1	9
Gingerbread,	5	–	3	1	–	1	–	1	–	–	–	–	–	–	2
Cookies and fancy crackers,	44	–	26	12	8	2	2	2	3	–	–	1	2	–	15

Fruit, candy, nuts,	629	24.4	181	98	49	14	10	10	303	190	57	15	18	23	145
Oranges,	266	–	81	35	28	8	6	4	139	96	21	5	8	9	46
Apples,	232	–	55	27	16	4	3	5	112	73	20	3	8	8	65
Bananas,	78	–	29	25	3	1	–	–	25	10	5	3	1	6	24
Other fruits,	12	–	3	1	1	–	–	1	4	1	1	1	1	–	5
Preserves,	18	–	5	4	–	–	1	–	8	8	–	–	–	–	5
Nuts,	12	–	2	1	1	–	–	–	10	–	10	–	–	–	–
Candy,	11	–	6	5	–	1	–	–	5	2	–	3	–	–	–
Relishes,	23	.9	2	1	–	1	–	–	18	7	9	1	–	1	3
Beverages,	338	13.1	147	80	38	18	10	1	121	86	7	12	5	11	70
Tea,	189	–	87	46	26	11	3	1	52	37	1	5	–	9	50
Coffee,	83	–	48	25	9	7	7	–	28	23	2	1	–	2	7
Milk,	43	–	–	–	–	–	–	–	33	23	4	3	3	–	10
Cocoa,	23	–	12	9	3	–	–	–	8	3	–	3	2	–	3

Sources of Information for the Above Items and the Distribution of Schedules, Menus and Food Items.

Number of schedules,	445	–	187	99	40	22	17	9	158	86	43	8	7	14	100
Number of menus,	712	–	287	146	64	36	27	14	246	146	54	15	12	19	179
Average number of food items per menu,	3.6	–	3.5	3.6	3.9	3.4	2.1	3.4	3.7	3.7	3.5	4.4	4.4	3.6	3.6
Number of kinds of food,	33	–	30	30	22	19	16	16	29	25	20	20	15	15	28

ence in the variety chosen by these groups as a whole, and for those nationalities which did not bring certain kinds of food the number of schedules and of menus was too small to conclude that they do not eat them. Women of American and of Jewish parentage reported the largest variety of foods.

The protein diet for all women consisted chiefly of meat, fish, eggs and cheese, used in sandwiches and supplemented often by plain bread and butter. Meats were brought more by women of English speaking parentage, and fish, eggs and cheese by women of non-English speaking parentage. National diet was most noticeable, however, in the kinds of bread, of meats and of fish, of vegetables and of fruit reported in the menus. Women of English speaking parentage brought chiefly white bread, but others brought rye or graham, sliced, or in loaves to be cut off when eaten, or thin like large pancakes and broken into portions convenient to handle. A large number of the menus of the Irish, Scotch, Jews and Italians include plain bread and butter. Ham and roast beef were the most popular meats for sandwiches with women of all nationalities except the Russian and Polish Jews, who preferred corned beef and chicken. Chicken is the third choice for all except the Hebrews and the Irish, who chose lamb oftener, and the Germans, who preferred Frankfurters (Table 17). Fish used in sandwiches were chiefly the small, dry or salt varieties, or else kinds that are easily minced. Salmon was the most popular, herring next and sardines third. The Jews and Italians are the chief eaters of this form of protein diet. Eggs were reported oftenest in the menus of women of Irish, Jewish and American descent, and cheese was used chiefly by Canadians, Italians, Jews and Americans, its frequency being in the order named.

Vegetables are most palatable when hot, and since it was not always convenient to warm over food in the factories, and since this kind of food must be brought in jars or tumblers thereby increasing the size and weight of the lunch bundle, they do not appear so conspicuously in the menus of women who ate lunches in the factory as they do in those purchased in the commercial restaurants and employees' cafeterias. Potatoes were brought oftenest by Americans and baked beans by Americans and Irish. Peppers and onions were most popular with Italians, 15.9 per cent. of whose food items were these vegetables as compared with 4.4 per cent. of the vegetable food of women of English speaking parentage.

TABLE 17. — *Choice of Meat and Fish as Sandwich Fillings by Women and Girls of English and Non-English Speaking Parentage, working in Factories and Factory Offices, who brought Lunches from Home.*

SANDWICHES.	Total Times Kinds of Meat and Fish were reported in Menus brought from Home.	WOMEN OF ENGLISH SPEAKING PARENTAGE.				WOMEN OF NON-ENGLISH SPEAKING PARENTAGE.				Not reported.
		Total.	American.	Irish.	Canadian, English, Scotch.	Total.	Russian or Polish (Jewish).	Italian.	German, Swedish, Others.	
All sandwiches,	462	171	87	39	45	162	96	40	26	129
Meat,	380	164	81	39	44	105	53	27	25	111
Ham,	152	75	36	18	21	29	3	15	11	48
Roast beef,	57	28	16	5	7	13	4	4	5	16
Chicken,	31	17	10	3	4	12	10	2	–	2
Corned beef,	31	6	2	4	–	16	14	1	1	9
Lamb,	22	14	6	5	3	1	–	–	1	7
Pork,	12	6	3	2	1	2	1	1	–	4
Frankfurter,	12	4	1	1	2	8	5	–	3	–
Tongue,	7	1	1	–	–	4	4	–	–	2
Dried beef,	7	3	2	–	1	1	–	–	1	2
Cold meat, not specified,	36	6	2	–	4	15	11	2	2	15
Others,[1]	13	4	2	1	1	4	1	2	1	5
Fish,	82	7	6	–	1	57	43	13	1	18
Salmon,	24	2	1	–	1	14	14	–	–	8
Sardines,	11	3	3	–	–	4	3	–	1	4
Herring,	12	–	–	–	–	11	11	–	–	1
Lachs,	3	–	–	–	–	2	2	–	–	1
Others,[2]	32	2	2	–	–	26	13	13	–	4
Sources of Information for the Above Items and the Distribution of Schedules and Menus.										
Number of schedules,	445	187	99	40	48	158	86	43	29	100
Number of menus,	712	287	146	64	77	246	146	54	46	179

[1] Veal, mutton, meat cakes.

[2] Salt, dry, small fish.

Women of all nationalities ate cake, pie, oranges and apples for dessert, except that the Italians and South Europeans did not bring pie. Cake was reported oftenest by Canadians, Germans, Americans and Irish, and the kinds named were chiefly plain, fruit and mocha. The most popular kinds of pie were apple and mince. Fruit forms 32.9 per cent. of the food items of women of non-English speaking parentage, as compared with 18 per cent. of those of English speaking parentage, but fruit also is mentioned often by American and Irish women. The quickest and easiest hot beverage to prepare was tea. It was reported oftener than coffee, cocoa and milk together by women of English speaking parentage, but coffee and milk were also used considerably by Jewish women. The Swedish women were the only ones who did not report tea and coffee, but the number of their schedules was too small to justify the statement that they never use them.

The Box Lunch and Fruit Venders.

Boston has two firms which make a business of putting up box lunches and delivering them in the various places of business for a small sum. One of these companies has an automobile for delivery, but the boxes are also sold on commission by messengers, janitors, office boys or watchmen. A number of combinations are put up, varying in price from 10 to 25 cents, and consisting of two or three sandwiches, cake, pie and fruit, which are wrapped in waxed paper and packed in a light cardboard box. With this possibility of securing a lunch at a low cost it might be supposed that the women who work in factories could easily obtain food in an emergency, but those who had tried the box lunches commented thus: "They do it up all right, but it doesn't taste good." "I bought one once, but never again." "It looks all right, but we can't eat it." In nearly every factory inquiry was made as to whether such lunches were purchased, and invariably women were not advocates of the "box lunch." Certain kinds of food, even if fresh, cannot be confined without developing a strong odor and, as one girl remarked, it was "factory food and not home cooking." It is also true that most people prefer to choose the different items of their lunch instead of having a "foreordained" combination.

A different kind of a commercial effort to cater to the lunch needs of factory women is made by the Italian fruit venders. They come

TABLE 18. — *Commercial Restaurants patronized by Women and Girls working in Factories and Factory Offices, classified according to Frequency of Buying, and Prices actually paid for Menus in Week of Interview.*

COMMERCIAL RESTAURANTS.	PREFERENCE EXPRESSED.				WOMEN WHO BOUGHT LUNCHEON —				WOMEN WHO PAID FOR LUNCHES —					Not reported.
	FIRST CHOICE.		SECOND CHOICE.		5 or 6 Days.	3 or 4 Days.	1 or 2 Days.	Occasionally.	Less than 15 Cents.	15 Cents and less than 20.	20 Cents and less than 25.	25 Cents and less than 30.	30 Cents and more.	
	Number.	Per Cent.	Number.	Per Cent.										
All restaurants,	111	100.0	111	100.0	53	7	19	32	3	10	17	29	5	47
Restaurant A,	17	15.7	3	10.7	6	–	6	5	–	5	5	1	–	6
Restaurant B,	20	18.5	3	10.7	12	2	1	5	1	1	5	4	1	8
Restaurant C,	21	19.5	4	14.3	16	–	2	3	–	1	1	8	–	11
Restaurant D,	16	14.8	9	32.2	6	1	4	5	–	1	–	7	–	8
Restaurant E,	5	4.6	2	7.1	3	–	1	1	–	–	–	2	1	2
Restaurant F,	5	4.6	2	7.1	1	2	2	–	–	1	–	4	–	–
Restaurant G,	2	1.9	1	3.6	–	–	1	1	–	–	–	–	–	2
Restaurant H,	2	1.9	1	3.6	2	–	–	–	–	–	–	–	2	–
Restaurant I,	4	3.7	–	–	2	–	–	2	–	1	1	1	–	1
Others,	16	14.8	3	10.7	5	1	1	9	2	–	5	2	1	6
Not reported,	3	–	83	–	–	1	1	1	–	–	–	–	–	3

to town, chiefly from Somerville and Lynn, early in the morning, with their large hampers. They have no stores, but stock up at the markets, and from 10 to 1 o'clock go quickly on regular routes through a number of buildings in which they are given the sole right to sell fruit, chocolate bars, nuts and gum. One vender when questioned said that he had been in the country five years, and that his profits averaged $2.50 to $3 a day. Most of the managers encouraged these venders to come in, and they were reported by the women to be very generally patronized. Two or three managers, however, did not permit them to sell in the factory workroom, for they feared the workers would be tempted to depend upon such purchases for an entire lunch. Another said that the prices of the fruit were too high. "It is cheaper to buy at a fruit store where you can get 2 oranges, bananas or apples for 5 cents, but of course sometimes one forgets to buy or has other bundles." Not many women ate chocolate bars and candies with their noon lunches, and most of them seemed to bring their own fruit. Nevertheless, fruit vending is a resource in an emergency, and as such is to be commended.

The Luncheon purchased by Factory Workers in Commercial Restaurants.

Although the home supplied the lunches of most of the women in factories and factory offices, the commercial restaurant was a luncheon resource for a small group of workers who purchased their lunches in town. Of the 521 factory women interviewed, 53 purchased their lunches every day, and 58 more bought them frequently or occasionally (Table 18). These buyers of lunches were chiefly office women in the higher wage group, who had forty-five or sixty minutes at noon (Table 11). A fourth of them (25.9 per cent.) gave as a reason for buying rather than bringing lunches the inconvenience of putting up a lunch at home. Nearly a third of them (29.9 per cent.) said they were only occasional buyers because of the cost of the commercial lunches or because of the shortness of the noon hour (Table 9). The restaurant lunch appeared to be more attractive than the home lunch in that it offered hot food and a change of diet instead of a cold, dry lunch.

The restaurants patronized by these women were chiefly of the counter or cafeteria type of service. Nine of them were located in

the immediate factory district, or very near, and a string of stores are maintained by the most popular ones. The health department of the city which inspects the 1,500 or more restaurants rates Restaurants A, B, C and D as superior in methods and equipment to some first-class hotels. Restaurant A (Table 18) had the most attractive equipment and cafeteria service. Restaurants B and C had counter service, and D had table service. Restaurant C was the one most often praised for the flavor of its food, and was regularly patronized by the largest percentage of the buyers of lunches (14.4 per cent.).

The variety of foods reported in the menus purchased at the commercial restaurants was greater by 7 items than in the lunches brought from home, and the list of vegetables and desserts was longer. The average menu, however, had 3 (2.6) items instead of 4 (3.6), as the home menus had (Tables 16 and 19), but the meal was probably as nourishing and certainly hotter than the home lunch, even though the buyer did not eat as many portions or kinds of food. The most popular items were meat, potatoes and pie. Hot dishes took the place of the sandwiches of the home lunch, and fish was reported oftener but bread was reported in about the same proportion. Pie and coffee in the restaurant lunch surpassed cake and tea in popularity.

The amount spent for luncheon was chiefly 25 cents, 45.3 per cent. of the buyers giving this as the price actually paid for a luncheon the items of which were also reported (Table 18). In Restaurant A, where there was cafeteria service, lunches were the least expensive, and were purchased at 15 and 20 cents, but in Restaurants B and C, 20 and 25 cents were the prices quoted, and attendance was more regular in these two because the food was liked. The prices at which the kinds of food were offered in the bills of fare of 8 of the restaurants patronized by the women interviewed (Table 21) are interesting in connection with the make-up of the typical menu and the predominant price paid for it, — 3 food items at 25 cents. The beverage and dessert, reported oftenest, were 5 cents each, and the remaining 15 cents was spent for a hot dish or a hot dish and vegetable. Sandwiches at 5 and 10 cents each were offered frequently and fruit occasionally, but women did not buy them, though both were characteristic of the luncheon brought from home. All the restaurants offered combinations of food at special prices. One of them offered daily 5, 10, 15, 20, 25 and 35 cent specials, also a num-

ber of salad, meat and vegetable combinations for a quarter, a lunch special of a sandwich, cake, ice cream and coffee for a quarter, and a dessert special of ice cream, cake and beverage for 15 cents. The best combination for a quarter was offered at the most popular restaurant, and consisted of meat, potato, a vegetable and any 5-cent dessert. A vegetable dinner was offered here also for a quarter.

TABLE 19. — *Number of Times the Kinds of Food appear in the Lunch Menus of Women and Girls working in Factories and Factory Offices, who bought Lunches in Commercial Restaurants.*

KINDS OF FOOD.	TOTAL TIMES.		KINDS OF FOOD.	TOTAL TIMES.	
	Number.	Per Cent.		Number.	Per Cent.
All foods,	307[1]	100.0	Desserts,	60	19.5
			Cake,	14	–
			Pie,	20	–
Soup,	26	8.4	Ice cream,	2	–
			Doughnuts,	3	–
Hot dishes,	45	14.7	Coffee jelly,	4	–
Meat,	26	–	Puddings,	7	–
Spaghetti or macaroni,	2	–	French pastry,	4	–
Fish,	11	–	Apple dumplings,	3	–
Eggs,	1	–	Eclairs,	3	–
Cheese and macaroni,	5	–			
			Fruit, etc.,	10	3.2
Vegetables,	50	16.3	Oranges,	2	–
Potatoes,	25	–	Apples,	1	–
Peas,	1	–	Bananas,	1	–
Corn,	3	–	Preserves,	1	–
Baked beans,	1	–	Others,	5	–
Asparagus,	4	–			
Tomatoes,	5	–	Relishes,	2	.7
Beans,	2	–			
Succotash,	2	–	Beverages,	74	24.1
Cabbage,	2	–	Tea,	18	–
Others,	5	–	Coffee,	49	–
			Milk,	3	–
Salads,	2	.7	Cocoa,	4	–
Bread and butter,	38	12.4			

[1] Number of schedules, 111; number of kinds of food, 37; average number of food items per menu, 2.6.

Still another restaurant offered eggs cooked in many attractive combinations, and fruits, cereals, cheese and nuts were conspicuous on the bill of fare.

The price paid for a luncheon in a commercial restaurant is beyond the means of the average factory worker. The definite sum of 15 cents is firmly established in her mind as an allowance for the noon meal. If she has attended one of the high schools of the city she has been accustomed to pay 10 cents for a satisfactory lunch, and could have purchased a substantial meal for 15 cents, as a recent investigation of the school lunch system has shown. When, as a

working girl, she contributes her pay envelope to the family income she receives back from her mother each day 25 cents for car fare and lunch. If her sister is a salesgirl in a Boston department store she probably buys her luncheon in an employees' cafeteria for 15 cents.

Everywhere in the popular mind 15 cents is the standard allowance for luncheon for a working girl or woman. Since 1911 the cost of food and of other essentials of the standard of living has been investigated in 12 States as a basis for minimum wage legislation, and in 2 of these separate consideration was given to the lunch problem. Both in New York,[1] where investigators called at the homes of the workers for information, and in Ohio,[2] where the cost of luncheon was one of the expenditures entered by the women in account books, it was found that 15 cents was the amount most often quoted. Estimates of social workers in Boston[3] have also placed the standard allowance at 15 cents.

The results of the present investigation indicate that office workers and others in responsible positions who are earning as much as $8 a week on time work are the only ones who patronize the restaurants. They form but one-fifth of the entire group interviewed. For these the commercial restaurant is a convenient resource, but, like the box lunch and the fruit vending, it does not offer to four-fifths of the factory women a satisfactory solution of the problem of securing a luncheon in town when it is desirable or necessary for them to do so.

The Luncheon of Women in Department Stores.

The women in the department stores of Boston have a far more normal noon hour, and they are surrounded by more of the comforts and amenities of life than are the women working in factories and factory offices. Instead of eating in workrooms at tables or machines, where their lunches are frequently in contact with the goods being manufactured, the saleswomen leave their counters and merchandise to spend an hour eating and resting in rooms provided for their use. All of the department stores of Boston city proper have lunch rooms for their employees, and in 7 of them food is sold on the cafeteria plan at cost or at very low prices. Four other department

[1] Fourth Report of the New York State Factory Investigating Commission, 1915, Vol. IV., p. 512.

[2] Cost of Living of Working Women in Ohio, State Department of Investigation and Statistics, Report 14, 1915.

[3] Report of Massachusetts Commission on Minimum Wage Boards, January, 1912, p. 224.

stores have rooms where lunches brought from home may be eaten, and one of them has cooking facilities for the use of the employees.

The employees' cafeterias of the large department stores are located high up in the store buildings, where there is plenty of light and air. Most of the rooms have hardwood or linoleum floors, white or tinted walls, and curtains or shades at the windows. Usually the tables are bare, but white linen is used in one store, oilcloth covers in another and white vitrolite slabs in another. From 11 until 2 or 3 o'clock groups of employees arrive at the lunch room by elevator,

TABLE 20. — *Reasons assigned by Women and Girls working in Department Stores in Boston for buying Lunches in Employees' Cafeterias rather than bringing them from Home.*

REASONS.	TOTAL WOMEN.		Cafeteria A.	Cafeteria B.	Cafeteria C.	Cafeteria D.	Cafeteria E.	Cafeteria F.	Lunch Room G.[1]
	Number.	Per Cent.							
All reasons,	145[2]	100.0	25	25	26	25	22[3]	12[3]	10[3]
Inconvenience of putting up lunch,	48	33.1	8	12	10	7	7	–	4
Just as cheap to buy as to bring lunch.	27	18.6	6	3	3	4	5	3	3
The quality of the food is good,	26	18.0	7	4	3	4	2	4	2
Preference for variety and hot foods,	17	11.7	2	2	4	3	4	2	–
Lunch not included in board,	4	2.8	–	–	2	1	–	1	–
Other reasons,	3	2.0	–	–	2	1	–	–	–
No reasons given,	20	13.8	2	4	2	5	4	2	1

[1] Food was not sold in this lunch room, but buyers purchased their lunches at a commercial lunch room within the store.

[2] One schedule omitted from this table was secured in a store not personally visited.

[3] Twenty-five schedules from each store were secured, except 26 in C; the remainder of the 25 in E, F and G brought lunches from home.

form a "bread line" in front of the food counter, and as they walk along, study the menu for the day, posted on the wall. With tray in hand they receive their orders promptly from the servers, pay the cashier as they leave the line, take silver, glasses and paper napkins, and seat themselves at the tables to eat and converse.

The lunch rooms were used by all the employees, whether they brought their lunches from home or purchased them at the lunch-room cafeteria. Of the 25 or more women interviewed in each of the 7 stores, 80 per cent. (Table 23) bought their lunches. Nearly 20

(18.2) per cent. brought their entire luncheon from home every day, but they were chiefly employed in 2 stores, in one of which there was no cafeteria equipment and in the other there were complaints of undercooked food. Only two women in the department stores went home to dinner.

The reasons given for buying lunches in these employees' cafeterias rather than bringing them from home were chiefly tributes to the convenience of the lunch room and the quality and inexpensiveness of the food. One-third (33.1 per cent.) of the group said that it took too much time and was too much trouble to put up a lunch in the morning. Nearly one-fifth (18.6 per cent.) said it was just about as cheap to buy a lunch at the cafeteria as it was to bring it, and about a third (29.7 per cent.) more said that the cafeteria food was good, and that they enjoyed having a change from the home diet, or that they liked something hot to eat and drink for luncheon (Table 20).

These reasons agree with those given by factory women for buying lunches in the public restaurants as to the greater convenience of doing so (25.9 per cent.), and as to a preference for variety and hot food (Table 9), but they are in marked contrast to the reasons given by the factory women who brought lunches from home and ate them at work tables or machines. These said chiefly (27.8 per cent.) that they preferred home food, and that the commercial lunches were too expensive to buy (Table 10), whereas women who ate lunches at employees' cafeterias said they liked the food, and that it was just as cheap to buy a lunch as to bring one. Only 6 of the 181 women in the stores said that it cost too much to buy a lunch at the cafeterias.

Comparison of the Quality and Prices of Food in Restaurants and Employees' Cafeterias.

The superior quality and the low prices of the food, according to the statements of the women themselves, were reasons for the difference in patronage of the commercial restaurants and of the employees' cafeterias. Managers of the cafeterias were well aware of the necessity of pleasing the workers with food of good quality. "They are like one big family, and they'd go somewhere else or bring all their lunch from home if they didn't like the food," said one man-

ager. Another told how he secured canned vegetables by contract from the producer, and paid the highest prices for fresh vegetables, meat and fish, in order to be sure of getting the best quality. Then, too, the price paid for a satisfactory lunch in the cafeterias was but 15 cents, whereas it was 25 cents in the restaurants. As has been shown, 15 cents is the price a working woman feels she can afford to pay for the noon meal.

A comparison of the prices charged per serving in the restaurants with the prices charged in employees' cafeterias explains why it is that the women in the factories and factory offices paid 10 cents more when they purchased a luncheon than did women in the department stores. Printed bills of fare were secured from 8 of the Boston restaurants patronized by the factory women, from 6 of the employees' cafeterias in Boston department stores, and by mail from 7 cafeterias in stores, factories and offices in other cities. These 21 restaurants and employees' cafeterias are located in 10 different cities, — Boston, Framingham, Philadelphia, New York, Washington, Rochester, Cleveland, Toledo, Buffalo and Indianapolis. Even amounts of money, as 5, 10, 15, 20, 25 cents, etc., were charged for servings in commercial restaurants, but in the employees' cafeterias odd amounts, as 1, 2, 3, 4 and 5 cents up to 10 and 11 cents, were charged. The range in prices (Table 21) in the restaurants was from 5 to 35 cents, whereas in the cafeterias it was from 1 to 20 cents. The prices most often charged in the commercial restaurants were 5, 10 and 15 cents, but those in the cafeterias were 3, 5 and 10 cents.

The principal prices for the kinds of food group by group also vary considerably. Hot dishes and sandwiches are 10 and 15 cents in restaurants, while they are 5 cents in cafeterias. Vegetables are 5 and 10 cents in restaurants, but only 3 and 5 in employees' cafeterias. Salads are 10 to 30 cents in the former, but only 5 and 10 cents in the latter. Bread and butter is 5 cents and 2 cents. Desserts are 5 and 10 in one, whereas they are but 5 in the other. Beverages are 5 cents in restaurants and only 3 in cafeterias. Special combinations of food for a lunch range from 15 to 35 cents in the restaurants, but from 12 to 20 cents in the cafeterias. The protein foods are 10, 15, 25 and 30 cents in restaurants, the one dish alone costing as much if not more than a working girl can afford to pay for her entire lunch. In cafeterias, however, salads alone of the protein group are as much as 10 cents, while for 15 cents a working

TABLE 21. — *Kinds of Food and Prices at which they are offered in Eight Commercial Restaurants patronized by Women and Girls working in Boston as compared with Prices at which they are offered in Thirteen Employees' Cafeterias in Ten Cities.*

KINDS OF FOOD.	EIGHT COMMERCIAL RESTAURANTS IN BOSTON.		THIRTEEN EMPLOYEES' CAFETERIAS IN 10 CITIES.	
	Predominant Prices charged per Serving (Cents).	Lowest and Highest Prices charged per Serving (Cents).	Predominant Prices charged per Serving (Cents).	Lowest and Highest Prices charged per Serving (Cents).
Hot dishes: —				
Soup,	10	5–15	5	2–10
Stew,	20	5–25	8	5–12
Chowder,	10	5–15	5	3–12
Broth,	10	10–15	5	4–6
Meat,	15	15–35	10	4–20
Fish,	10, 15, 20	10–30	5	5–12
Eggs,	15, 25	10–30	5	5–12
Cheese and macaroni,	10	10–15	5	4–5
Sandwiches: —				
Meat,	10	5–35	5	5–8
Fish,	15	5–30	5	3–8
Salad roll,	5	5–20	5	5
Cheese and olive,	5	5–15	5	5
Egg,	10	10–25	5	5
Lettuce,	10	5–15	5	3–5
Fruit and nut,	5, 10	5–10	5	5
Vegetables: —				
Potatoes,	10	5–10	3	2–6
Baked beans,	10	5–15	5	3–6
Peas,	5	5–10	5	3–5
Corn,	5	5–10	5	3–5
Others,	5	5–10	3	3
Salads: —				
Meat,	30	15–30	10	5–20
Fish,	30	15–30	10	5–15
Vegetable,	15	5–20	5, 10	4–10
Potato,	10	5–20	10	5–10
Egg,	20	15–25	5, 10	5–10
Fruit,	15, 20	10–25	10	4–10
Bread, rolls, etc.,	5, 10	5–10	1	1–5
Butter,	–	–	1	1
Toast or crackers,	5, 10	5–15	1	1
Desserts: —				
Cake,	5	5	4	1–4
Pie,	5	5–10	5	4–5
Ice cream,	10	5–15	5	3–8
Sundaes,	10	10	5	5
Doughnuts,	5	5	1, 2	1–2
Jelly,	5	5–10	5	3–6
Pudding,	5	5–10	5	3–6
Baked apple,	5	5–15	5	3–5
Custards,	5, 10	5–10	5	5
Fruit: —				
Oranges,	5	5	3	3–5
Bananas,	5	5	2, 3	2–3
Preserves,	5	5	5	3–5
Relishes: —				
Pickles,	5	5	1	1
Others,	5	5	1	1

TABLE 21. — *Kinds of Food and Prices at which they are offered in Eight Commercial Restaurants patronized by Women and Girls working in Boston as compared with Prices at which they are offered in Thirteen Employees' Cafeterias in Ten Cities* — Con.

KINDS OF FOOD.	EIGHT COMMERCIAL RESTAURANTS IN BOSTON.		THIRTEEN EMPLOYEES' CAFETERIAS IN 10 CITIES.	
	Predominant Prices charged per Serving (Cents).	Lowest and Highest Prices charged per Serving (Cents).	Predominant Prices charged per Serving (Cents).	Lowest and Highest Prices charged per Serving (Cents).
Beverages: —				
Tea,	5	5	3	2-5
Coffee,	5	5	3	2-5
Milk,	5	5	3	1-5
Cocoa,	5	5	3	3-5
Sodas,	5	5-10	5	5
Special combination,	25	15-35	15	12-20
Box lunch,	–	–	10	10

girl can buy one kind of protein food, a vegetable, a dessert and a beverage. This is the same lunch for which she pays 25 cents in the commercial restaurants.

It might be thought that the retail prices of food in the different cities would vary according to the cost of production and distribution. Such was not the case on the bills of fare described above. Apparently those retail prices which the patron will pay are charged both in the restaurants and employees' cafeterias.

Typical bills of fare from 3 employees' cafeterias in Boston, Buffalo and Washington, D. C., follow: —

Boston.

	Cents.		Cents.
Fish chowder,	12	Crackers, 3 for	1
Sliced tongue,	10	Cookies, 2 for	1
Potato salad,	5	Cake,	3
Broiled sweet potato,	5	Pie,	4
Butter beans,	5	Tea,	2
Sliced tomatoes,	5	Coffee,	3
Sardine sandwich,	5	Cocoa,	3
Bread pudding and sauce,	6	Milk,	3
Rolls,	1	Candy,	1
Butter,	1	Crullers,	2

Washington.

	Cents.		Cents.
Vegetable soup,	5	Egg salad, rolls and butter,	10
Roast beef, mashed potatoes, bread and butter, coffee or tea or milk,	15	Mashed potatoes,	3
		Stewed tomatoes,	3
Frankfurters and potato salad,	10	Spaghetti,	3
		Ice cream,	5

Buffalo.

	Cents.		Cents.
Beef croquette, tomato sauce, scalloped potatoes, bread or rolls, coffee or tea or cocoa or milk, pudding or pie or ice cream,	20	White bread,	2
		Butter,	1
		Rye bread,	2
		Graham bread,	2
Clam chowder,	3	Grapefruit salad,	10
Swiss steak, gravy,	12	Compote of rice with peaches,	3
Cheese soufflé,	5	Pineapple pie,	4
Beef croquette, tomato sauce,	10	Stewed prunes,	3
Codfish cake,	5	Vanilla ice cream,	3
Baked beans,	3	Walnut sundae,	6
Scalloped potatoes,	3	Coffee,	3
Steamed squash,	4	Tea, green or black, with lemon or milk, per cup,	3
Wax beans,	3	Cocoa, whipped cream,	3
Baking powder biscuit,	1	Milk,	3

Consideration should be given to the fact that the public restaurant exists as an investment for business profit, whereas the cafeteria in department stores is established to contribute to the efficiency and health of the employees. One is commercial, the other is subsidized; one expects to make as much or more profit than the money could earn at interest in the bank, the other expects to cover merely the expense of food and labor and to pay little or nothing of the cost of rent, light, heat and upkeep. Women working in large groups in factories and stores willingly wait on themselves, knowing that this reduces the expense of the daily meal. In some cafeterias they also return the trays and dishes to a counter or dish carriage, thus saving the cost of labor in clearing away. In other places where both self service and table service are used an extra charge of 5 cents is made for the latter.

A number of dairy lunches, lunch counters, "one-arm" [1] places

[1] Restaurants providing chairs with wide arms rather than tables or counters.

and commercial cafeterias are to be found in Boston, but even in these prices are higher than a working woman can pay regularly for a satisfactory meal at noon. Managers of two of the commercial cafeterias have calculated the average price paid by women in these places to be 18 cents. Their patrons, however, include shoppers as well as working women, and the fact that the price quoted is an average shows that the actual cost of some of the lunches ranged above as well as below the 18 cents, and while this is undoubtedly lower than the restaurant average it is still beyond the price of 15 cents to which the working woman tries to limit herself, and the fact remains that any commercial lunch room cannot be regularly patronized by women who are earning low wages.

Composition of the Lunches in the Department Stores.

Women working in department stores had, on the whole, a more satisfactory luncheon than did women in the factories. The average number of items per menu was 4.3, as compared with 3.6 in the factories and 2.6 in the commercial restaurants (Tables 16, 19 and 22), and the list of foods was longer than either by 7 items. About 50 (53.6) per cent. of those who bought lunches purchased the entire luncheon, and 46.5 per cent. bought something every day (Table 23).

A typical menu purchased entirely in a cafeteria consisted of a hot dish, bread and butter, dessert and a beverage. The principal hot dish chosen was meat, and it was often though not always accompanied by baked potatoes; pie and cake were chosen about equally for desserts; and tea and coffee were reported twice as often as meat, and just as often as all the hot dishes together. These hot beverages were chosen equally in the cafeterias, whereas coffee was found to be the favorite in the restaurants and tea in the factories. Sandwiches were not purchased at all in either place, but bread and butter and desserts were purchased more than they were brought from home.

Women in department stores ate their noon meal in the employees' lunch room, but they were not obliged to purchase their food there; 20 per cent. of those interviewed brought their entire lunch from home, and nearly 30 (27.1) per cent. brought the regulation lunch of sandwiches, bread and butter, fruit and dessert, and supplemented

TABLE 22. — *Number of Times the Kinds of Food appear in Lunch Menus of Women and Girls in Department Stores, classified according to Method of obtaining Food.*

KINDS OF FOOD.	TOTAL TIMES KINDS OF FOOD APPEAR IN LUNCH MENUS.		NUMBER OF TIMES KINDS OF FOOD WERE REPORTED IN LUNCH MENUS BY WOMEN WHO —	
	Number.	Per Cent.	Bought it in Employees' Cafeterias.	Brought it from Home.
All foods,	1,264[1]	100.0	725	539
Soup,	34	2.7	24	10
Hot dish,	111	8.8	111	–
Meat,	56	–	56	–
Fish,	24	–	24	–
Eggs,	1	–	1	–
Macaroni and cheese,	30	–	30	–
Sandwiches,	144	11.4	–	144
Meat,	73	–	–	73
Fish,	17	–	–	17
Egg,	3	–	–	3
Cheese,	19	–	–	19
Jelly or jam,	20	–	–	20
Nut and sugar,	4	–	–	4
Peanut butter,	6	–	–	6
Others,	2	–	–	2
Vegetables,	113	9.0	98	15
Potatoes,	66	–	55	11
Peas,	12	–	12	–
Corn,	8	–	8	–
Lettuce,	8	–	8	–
Baked beans,	5	–	4	1
Others,	14	–	11	3
Salads,	16	1.3	13	3
Bread and butter,	240	19.0	138	102
Desserts,	287	22.7	167	120
Cake,	126	–	50	76
Pie,	76	–	57	19
Ice cream,	29	–	29	–
Doughnuts,	15	–	7	8
Cheese,	8	–	7	1
Coffee jelly,	10	–	8	2
Puddings,	10	–	7	3
Cookies,	10	–	1	9
French pastry,	3	–	1	2
Fruit, candy, etc.,	133	10.5	41	92
Oranges,	62	–	15	47
Apples,	37	–	10	27
Bananas,	17	–	5	12
Preserves,	9	–	7	2
Chocolates,	5	–	3	2
Pop corn,	3	–	1	2
Relishes,	11	.8	5	6
Beverages,	175	13.8	128	47
Tea,	89	–	56	33
Coffee,	60	–	54	6
Milk,	15	–	14	1
Cocoa,	9	–	2	7
Sodas,	2	–	2	–

[1] Number of schedules for above information, 179, which excludes two who go home to dinner; number of menus, 298. Buyers numbered 146 and had 226 menus; bringers numbered 107 and had 158 menus. The average number of items per menu was 4.3. Seventy-four schedules are repeated, since food was both bought and brought.

TABLE 23. — *Percentage and Frequency of bringing, buying and supplementing Lunches by Women and Girls working in Seven Department Stores of Boston who ate in Employees' Lunch Rooms.*

KINDS OF EMPLOYMENT.	TOTAL WOMEN.		WOMEN WHO BROUGHT ENTIRE LUNCHEON 5 TO 6 DAYS.		WOMEN WHO BOUGHT ENTIRE LUNCHEON 1 DAY AND LESS THAN 5 DAYS.		WOMEN WHO SUPPLEMENTED HOME LUNCHEON 1 DAY AND LESS THAN 5 DAYS.		WOMEN WHO BOUGHT OR SUPPLEMENTED HOME LUNCHEON 5 TO 6 DAYS.		WOMEN WHO WENT HOME AT NOON.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
All employments, . . .	181	100	33	18.2	97	53.6	49	27.1	84	46.5	2	1.1
Mercantile pursuits, . .	134	100	25	18.7	68	50.8	39	29.1	59	44.0	2	1.1
Office work, ...	32	100	7	21.9	20	62.5	5	15.6	17	53.1	–	–
Manufacturing pursuits,[1] .	15	100	1	6.7	9	60.0	5	33.3	8	53.3	–	–

[1] Sewing and alteration.

them with a vegetable, dessert or beverage purchased in the cafeteria (Table 23). Thus they could procure a heartier meal and spend but 5 or 10 cents daily. This percentage, though based on small numbers, was approximately true in each of the stores. Meat and cheese

TABLE 24. — *Number of Times Certain Foods appear in Lunch Menus of Women and Girls in Department Stores who brought Lunches from Home and supplemented them by Food purchased in Employees' Cafeterias.*[1]

KINDS OF FOOD BROUGHT FROM HOME.	TIMES THE KIND OF FOOD APPEARED IN LUNCH MENUS.		KINDS OF FOOD BOUGHT TO SUPPLEMENT —	TIMES THE KIND OF FOOD APPEARED IN LUNCH MENUS.	
	Number.	Per Cent.		Number.	Per Cent.
All foods,	240	100.0	All foods,	110	100.0
Sandwiches,	77	32.1	Hot dishes,	12	11.0
Meat,	42	–	Soup or chowder,	1	–
Fish,	7	–	Meat,	4	–
Egg,	2	–	Fish,	2	–
Cheese,	11	–	Cheese and macaroni,	5	–
Jelly or jam,	9	–			
Peanut butter,	4	–	Vegetables,	16	14.5
Others,	2	–	Potatoes,	9	–
			Peas,	1	–
Vegetables,	2	.9	Corn,	1	–
			Baked beans,	3	–
Salads,	1	.4	Rice,	2	–
Bread and butter,	64	26.6	Salads,	7	6.4
Desserts,	39	16.2	Bread and butter,	3	2.7
Cake,	28	–			
Pie,	2	–	Desserts,	24	21.8
Doughnuts,	1	–	Cake,	6	–
Cheese,	1	–	Pie,	8	–
Cookies,	7	–	Ice cream,	7	–
			Doughnuts,	1	–
Fruit, candy, nuts, etc.,	47	19.6	Cookies,	1	–
Oranges,	23	–	Puddings,	1	–
Apples,	13	–			
Bananas,	6	–	Relishes,	2	1.8
Preserves,	1	–			
Chocolates,	2	–	Beverages,	46	41.8
Popcorn and nuts,	2	–	Tea,	14	–
			Coffee,	28	–
Relishes,	1	.4	Milk,	3	–
			Cocoa,	1	–
Beverages,	9	3.8			
Tea,	7	–			
Milk,	1	–			
Cocoa,	1	–			

[1] Number of schedules, 49; of menus, 86.

sandwiches, bread and butter, cake, oranges and apples held their own in the lunch brought from home (Table 22), just as they did in the factories, but not so many fish and egg sandwiches were brought, partly because there were fewer foreigners, and partly because these foods taste better when freshly prepared. The foods purchased as

supplementary to those brought from home were chiefly coffee, tea, meat or fish, cheese and macaroni, salad, potatoes, pie, cake and ice cream. Those who brought tea to the cafeterias had the use of cooking facilities or hot water, as was the case in the factories. Whenever the women are allowed to make it for themselves, tea is undoubtedly the favorite beverage for the noon meal.

General Survey of Employees' Cafeterias.

A comparison of the public restaurant and employees' cafeterias in the department stores shows that the cafeteria is a means of supplying working women with food and relaxation which is satisfactory both to the employers and to the employees. Managers in the factories were interested in the problem of getting a hot lunch served to their employees, and often requested criticism of the lunch conditions and suggestions for changes. It seemed desirable to ascertain how extensively the employees' cafeterias had been established in other cities, and to secure information as to their equipment, management and cost of operation. With the co-operation of various organizations and individuals, a list of firms was compiled which were known to have established employees' cafeterias for women, and a questionnaire was sent to each firm. Information was also sought by personal visit to the 7 Boston stores that had the cafeterias. Twenty of the larger mercantile establishments in 10 different cities, 32 factories located in 24 different cities, and 9 public utilities, publishing firms and educational organizations in 5 cities are included, making a total of 61 firms in 30 different cities, from Boston to San Francisco and from Chicago to Louisville and Washington, D. C. It is not claimed that the list is complete, but that it shows how widely this form of industrial betterment has been adopted as an essential of good business organization, and how many important and well-known firms are advocates of the employees' cafeteria. More than half (33) of the firms responded with information, descriptive booklets and letters. An examination of the data collected indicates that the employees' cafeteria is probably the chief and usually the first form of industrial betterment work undertaken in stores, factories and offices throughout the country.

In the large establishments employing from 60 to 2,000 or more women the relations between the employer and the employee usually

are controlled by a service or welfare department, with a secretary, a director, a manager or a superintendent at its head. The employees' lunch room may be directly in charge of one of these managers in the service department, or of a matron who attends to the preparation and serving of the food and the care of the lunch room, while the superintendent himself devotes his time to the buying and equipment and to other activities connected with the accommodation and comfort and industrial relations of the employees. Management of this type is paternalistic in character, since the firm provides it as a wise and humane business policy, but retains entire control of its operation. This type prevails in 26 of these 33 establishments, 9 of which have managers of service departments, 21 have matrons, one a nurse and another a dietitian in charge. One lunch club is operated by its own lunch committee.

An interesting example of the paternalistic type of lunch room occurs in a firm that provides free of charge a regular dinner at noon for its women employees. The meal is prepared by the women themselves in a well-equipped kitchen under the direction of a domestic science teacher, apparently to the pride and satisfaction of all concerned. "We have emphasized the home idea, and the girls are like a happy family. Their health has improved; besides, they all learn to cook and become good housekeepers," wrote the welfare secretary.

Four of the firms reporting through the questionnaire have "house committees" consisting of 3 to 6 members representing both the employers and the employees. Three others have employees' associations with lunch room committees that are either advisory or authoritative on questions of management. This type may be termed co-operative in contrast to paternalistic, and the trend of industrial relations to-day shows that the future is with the co-operative form of control. One of the directors wrote, "It is imperative that a committee of employees be given the management, because they are very efficient in keeping tabs on the gustatory pulse of the store, and their advice is valuable."

One establishment of the co-operative type has an employees' association for which no dues are charged, and in which every employee has some voice in the administration and control of working conditions. An executive committee is elected with general powers, and the manager of the lunch room is a professional restaurateur who enforces the rules of the association.

The question as to whether the lunch rooms were patronized by men as well as by women, and by office workers as well as other employees of the firm, had emphatic replies from a number of sources. Twenty-two, or two-thirds of the replies, stated that men and women ate together, and in 30 of the cafeterias office workers ate with the saleswomen and general helpers. In one of the Boston firms the fireman, the elevator man, the bundle girl, the buyer, the owner and the saleswomen ate in the same room, and very likely at the same tables. Eleven of the firms made additional provision for the comfort of the men employees who wished to smoke after their luncheon, and one firm found it possible to allow smoking in one end of the lunch room itself, for the ventilation and size of the room were such that there could be no annoyance to any one.

Equipment of Lunch, Rest and Recreation Rooms.

The amount of space that can be devoted to the use of the employees, and the equipment of the rooms for lunch, rest and recreation purposes, have been very carefully studied [1] and standardized by one of the firms, and plans of the general layout, arrangement and cost of the equipment were sent in reply to the questionnaire. The per capita service area was 19.2 square feet, and the whole service department area, providing for lunch, rest and recreation space, occupied 6.4 per cent. of a building for 300 employees.

Only one firm reported that no space was devoted to rest and recreation rooms. Five reported rest and recreation rooms separate from the lunch room, but 27 had the recreation room combined with it. Chairs and tables are moved back when the employees use the room for parties and meetings. Pianos were reported in 13 of these combination lunch and recreation rooms, and pianolas or graphophones in 4 others. Reading matter was supplied for those who wished, — newspapers in 15 firms, magazines in 20, a permanent library in 13, and a station of the city public library in 13. Other attractive features mentioned in the replies were easy chairs, rocking chairs and steamer chairs, lounges, card tables, writing tables, desks, telephone booth, bulletin board, hanging baskets and window boxes. Items of equipment for the cafeteria service reported by the 33 firms included a counter and railing, with shelf storage for dishes, a steam

[1] Equipment for a Factory Service Department, General Service Department, National Lamp Works of the General Electric Company, Cleveland, Ohio.

TABLE 25. — *Patronage, Predominant Price paid for Lunches, Cost of Food and Labor per Week, and Approximate Expenditure per Week in Employees' Cafeterias in Twenty-five Factories, Stores and Offices in Sixteen Cities.*

EMPLOYEES' CAFETERIAS.	Number of Women Employees.	WOMEN EMPLOYEES PATRONS OF CAFETERIAS.		PREDOMINANT PRICE PAID FOR LUNCH BY —		EXPENDITURE PER WEEK FOR —					Approximate Number of Meals served to Women per Week.	Approximate Expenditure per Capita per Meal.
						Total Amount for Food and Labor.	FOOD.		LABOR.			
		Number.	Per Cent.[1]	Women.	Men.		Amount.	Per Cent.	Amount.	Per Cent.		
All cafeterias,[2]	24,368	12,868	56.8	$0 10–0 15	$0 15–0 20	$7,792 77	$6,163 92	79.9	$1,628 85	20.1	77,208	$0 10
Operated at cost: —												
Factory A,	2,000	200	50.0	–	–	–	–	–	–	–	1,200	–
Factory B,	400	300	75.0	–	–	182 00	120 00	65.9	62 00	34.1	1,800	10
Factory C,	612	600	98.0	–	–	513 00	400 00	78.0	113 00	22.0	3,600	14
Office A,	1,000	700	70.0	10	20	609 00	335 00	55.0	274 00	45.0	4,200	15
Store A,	172	133	80.1	15	21	–	–	–	–	–	798	–
Store B,	600	180	32.7	11	–	90 13	83 13	92.2	7 00	7.8	1,080	08
Store C,	650	300	50.0	10	15	90 00	90 00	100.0	–	–	–	–
Store D,	789	500	63.3	10	25	515 00	400 00	77.7	115 00	22.3	3,000	17
Store E,	1,000	700	70.0	08	15	–	–	–	–	–	4,200	–
Store F,	3,000	1,500	50.0	15	–	–	–	–	–	–	9,000	–
Operated at a profit: —												
Office B,	60	60	100.0	–	–	24 50	15 00	61.2	9 50	38.8	360	07
Store G,	500	100	20.0	15	15	–	–	75.0–80.0	–	20.0–25.0	–	–
Store H,	1,000	400	40.0	15	15	–	–	75.0–80.0	–	20.0–25.0	–	–
Store I,	1,000	400	40.0	13	21	214 59	167 34	78.0	47 25	22.0	2,400	09
Store J,	1,100	500	46.5	10	–	128 00	80 00	62.5	48 00	37.5	3,000	–[3]
Store K,	2,000	1,400	70.0	15	20	1,547 00	1,322 00	85.5	225 00	14.5	8,400	18
Operated at a loss: —												
Factory D,	70	30	42.8	10	20	–	–	–	–	–	180	–
Factory E,	125	75	60.0	–	–	361 15	261 25	72.3	99 90	27.7	450	–[3]
Factory F,	340	90	26.5	20	25	148 00	127 00	85.8	21 00	14.2	540	27
Factory G,	1,000	500	50.0	10	13	185 00	130 00	70.3	55 00	29.7	3,000	06
Factory H,	1,250	500	40.0	14	17	950 00	800 00	84.2	150 00	15.8	3,000	32
Office C,	1,300	1,000	76.9	13	–	509 40	333 20	65.4	176 20	34.6	6,000	08
Store L,	400	400	100.0	15	20	80 00	–	–	80 00	100.0	–	–
Store M,	1,000	500	50.0	–	–	–	–	–	–	–	–	–
Store N,	3,000	1,800	60.0	10	11	1,646 00	1,500 00	91.1	146 00	8.9	10,800	15

[1] In finding percentages those who went home to dinner were counted out.

[2] Two factories and 3 offices provided free lunches, but are not listed in this table because of insufficient data. The numbers of employees and of patrons were given; percentage of patronage was 100.

[3] Questionnaire obviously misinterpreted.

table for the service of hot dishes and urns for the service of beverages, a cash register, dish carriage and garbage cans. The tables could be used by four to six persons, and were oblong or round, folding or permanent, with bare, polished or white tops. The cooking equipment included a range, a ventilating hood and pipe, a sink trough, cold storage for barrel and canned goods, and tables for use in the preparation of foods for cooking. The kitchens were rooms behind the cafeteria counters and service areas, and were separated from them by partitions with sliding doors through which food could be delivered to the servers by the cooks.[1]

Patronage, Predominant Price and Expenditures.

Twenty-five of the questionnaires that were returned by 33 of the listed firms were complete enough for tabulation as to the extent of patronage, the predominant price paid by men and women, and the expenditure per week for food and labor. The 8 factories, 3 offices and 14 department stores which supplied this information were grouped according to whether the lunch room was reported as operated at cost, at a profit or at a loss (Table 25). The data given are not strictly accurate, as the answers to the questions in some cases were carefully calculated and in others were estimated in round numbers. The statistics given include those from department stores in Boston where individual schedules of workers were secured. A total of 24,000 employees is represented in these 25 firms, 10 of which reported lunch rooms operated at cost, 6 at a profit and 9 at a loss.

The extent of patronage in these employees' cafeterias is reckoned on the number of possible patrons, excluding those who go home to dinner. Using these 22,637 possible patrons as the base, it was found that the average percentage of patronage was 56.8. This is in agreement with the percentages determined from the individual schedules in Boston department stores. It is therefore approximately correct to say that 20 per cent. of the employees will bring a lunch from home, and that from 50 to 60 per cent. can be counted upon for daily patronage.

[1] The United States Bureau of Labor Statistics has announced a projected bulletin to be called A Handbook on Welfare Work. Plans and specifications and descriptions of the various welfare activities throughout the country are to appear, and will include "anything over and above wages which an employer does for the employees' comfort or improvement, whether social or intellectual, which is not required by law or by the necessity of the industry." United States Bureau of Labor Statistics, Monthly Review, July, 1916, p. 18.

Wide variations from this percentage are explained by differences in the prices and quality of food and the extent to which the employees participate in the management of the lunch room. The lowest percentage for any establishment (20) was given by a Boston firm where individuals said that the food was undercooked. The next lowest percentage (26.5) coincides with higher predominant prices, 20 and 25 cents being paid for a luncheon rather than 15 cents. The predominant range in price paid by women in the 25 cafeterias is from 10 to 15 cents, and by men, 15 to 20 cents. That paid by women agrees with what the women themselves reported in the Boston stores and with the results of studies in New York and Ohio. In Store L, which had 100 per cent. patronage, the good quality of the food was the particular concern of the Boston manager. Office B, also showing 100 per cent. in patronage, was a lunch club, the management of which was completely in the hands of the members. Store A and Factory C are well known for the quality of food and of goods produced, and are found with 98 and 80 per cent. of patronage. Five firms that gave partial information could not be tabulated with the rest, but they reported meals served free of charge and 100 per cent. of patronage.

Information was sought as to the expenditure per week for raw materials, labor and the various items of overhead expense. The costs of raw materials and of labor were given by practically all the firms. Many of them explained that they did not separate the items for overhead expenses, or that these items were confused with other office expenditures or charged up to profit and loss. One firm gave the proportionate expenditure for the items of food and labor rather than the money cost, and these figures appear twice because the lunch room manager catered for two of the stores. The total cost of raw materials and preparation was divided between 80 (79.9) per cent. for raw materials and 20 (20.1) per cent. for the labor of preparation and of counter service. In other words, food cost four times what labor cost, and the large number of weekly patrons (77,000) reduced the per capita cost to 10 cents per meal.

Managers of the employees' cafeterias reported them as run "at cost," "at a profit" or "at a loss," but not more than one of them reported expenditures for overhead items, — rent, light, heat, fuel and upkeep. Such cafeterias do not, literally speaking, cover all expenses, as every expense which a commercial lunch room meets must

be apportioned and paid by the employees' cafeteria before it can truly be said to be operated at cost or at a profit. The overhead charges usually represent the amount of money which an employer is willing to invest in order to make employment in his establishment attractive to the employees, and in order to promote their health and business efficiency. Such an investment by the employer subsidizes the lunch room, and the degree of subsidy varies greatly in the various stores, factories and offices. Where meals are provided free, the subsidy is 100 per cent., and the management bears a burden that borders upon charity. Three of the 33 reporting firms gave amounts for rent varying from $5 to $25, 3 reported bills for light from $1 to $10, 1 separated the item of heat for $3.60, 6 gave amounts for fuel between $3 and $60, and 4 allowed $2 to $52 per week for upkeep.

Evidently employers [1] are bidding high for labor and efficiency, and are finding it profitable to enlist the health and good will of the employee in behalf of the firm. "It is a good business policy," writes one manager, "to establish lunch rooms." "The best investment the company ever made," writes another. "We are of the opinion that the provision of lunch facilities is the only right thing to do," comes from the Pacific coast, and "That it is wise from a business as well as an economic viewpoint is no longer questioned by those who have the welfare of their employees at heart," is the verdict from an Atlantic metropolis.

[1] "Owners of the larger, and the more progressive owners of the smaller, establishments recognize the fact that their interests are identical with those of their employees from a purely economic standpoint. These employers recognize that money invested for the maintenance of sanitary and healthful conditions in their establishments is a profitable investment. . . . They realize that good working conditions result in obtaining better, more intelligent and steadier employees, . . . and that absences on account of sickness are diminished and a higher grade of efficiency is secured." Massachusetts State Board of Health, Report of 1911, p. 567.

CHAPTER III.

THE FOOD OF WOMEN LIVING AWAY FROM THEIR FAMILIES.

The problem of three meals a day looms large to the working woman dependent on her own resources. She has a very small sum to spend for food, — too small to admit of serious mistakes in choice. Yet she has little knowledge of the comparative nutritive value of the bewildering variety of foods offered in the restaurant menu or at the market, and, generally, slight skill in cookery and little time or strength to devote to home preparation of meals. These difficulties are well summed up in a letter from a young working woman in Boston telling of her own experience in the business world.

"After I had paid the room rent," she wrote, "an average of 25 cents a week for laundry, 5 cents for church, and saving out 60 cents for car fare, I had $2.10 left to pay for clothes, 21 meals and incidentals. Some weeks I could live on it and others I could not. . . . About every three weeks I went on a 'food spree.' For instance, one day I simply had to have some M——'s lobster salad for lunch. It cost me 45 cents. I felt wicked all the rest of the week whenever I thought of that extravagance, but yet I did not regret it, for I was perfectly willing to live on almost nothing for the rest of the week to make up for it. I had to have those 'sprees' because — it's hard to explain — but I felt it kept me normal. But I used to think if I could only get the right kinds of food, the right combination, I could eat less and be better nourished. I got books out of the library, but the cook books did not help much and the books on food value were too scientific. . . . I asked the girls at the office about right kinds of food to eat, and they did not know. Housewives told me they didn't hear of such things in their day. When I used to feel queer or dizzy, I do not believe it was because I didn't get enough to eat, but because I didn't have the right things.

"My chum tells me that on her darkest financial day she had 10 cents to pay for the three meals. She bought a 5-cent box of crackers and 5 cents worth of pickles. When I asked her if she

didn't know of something more nourishing than pickles she said she didn't."

Waitresses and domestic servants do not have to face these food difficulties, but outside of these occupations is found a great body of industrial workers who are not living in family groups. Where do these women get their food, what variety can they obtain for their money, what devices for reducing cost are practicable, and what is the least sum for which a woman can be nourished adequately? All these are questions of importance to any community in which large numbers of women workers live apart from family groups. All minimum wage discussions take such a woman as their unit, and try to ascertain what wages are necessary to "supply the cost of living and to maintain her in health." Moreover, the isolation of women living in this way makes it possible that they may become public charges when overtaken by misfortune or ill health.

In 1900 there were in the 8 largest cities of the United States 91,770 women workers living away from home (Table 26). Boston

TABLE 26. — *Living Arrangements of Women Sixteen Years of Age and Over engaged in Gainful Occupations*[1] *in the Eight Largest Cities in the United States.*[2]

CITIES.	TOTAL WOMEN.		WOMEN LIVING AT HOME.		WOMEN BOARDING.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent
The 8 cities,	553,515	100.0	461,745	83.4	91,770	16.6
Baltimore,	38,104	100.0	32,846	86.2	5,258	13.8
Boston,	43,454	100.0	32,847	75.6	10,607	24.4
Chicago,	95,883	100.0	78,144	81.5	17,739	18.5
Cleveland,	19,964	100.0	17,549	87.9	2,415	12.1
New York,	218,073	100.0	185,739	85.2	32,334	14.8
Philadelphia,	91,774	100.0	74,920	81.6	16,854	18.4
Pittsburg,	12,767	100.0	10,906	85.4	1,861	14.6
St. Louis,	33,496	100.0	28,794	86.0	4,702	14.0

[1] Excluding boarding and lodging-house keepers, housekeepers and stewardesses, nurses and midwives, servants and waitresses.

[2] Twelfth United States Census, 1900, Statistics of Women at Work.

showed the largest proportion, about one-fourth of all women in gainful occupations being boarders. All great cities have large numbers of women living in this fashion; the proportion in 1900 varied from one-eighth (12.1 per cent.) of all women at work in Cleveland to about one-fifth (18.4 per cent.) of those at work in Philadelphia. Nor is this large proportion of women living away from their families confined to a few industries. In 1900 it varied in Boston from 20.1 per cent. of the saleswomen to 32.3 per cent. of the laundry workers.[1]

TABLE 27. — *Living Arrangements of Women engaged in Different Industries in Massachusetts.*[2]

INDUSTRIES.	TOTAL WOMEN.		WOMEN LIVING AT HOME.		WOMEN LIVING AWAY FROM HOME.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
All the industries, . . .	10,423	100.0	8,996	86.3	1,427	13.7
Brush factories, ...	481	100.0	418	86.9	63	13.1
Candy factories, ...	1,595	100.0	1,481	92.9	114	7.1
Corset factories, ...	672	100.0	565	84.1	107	15.9
Hosiery and knit goods factories,	1,676	100.0	1,498	89.4	178	10.6
Laundries, ...	1,218	100.0	945	77.6	273	22.4
Paper-box factories, . . .	866	100.0	727	83.9	139	16.1
Retail stores, ...	3,233	100.0	2,801	86.6	432	13.4
Women's clothing factories, .	682	100.0	561	82.3	121	17.7

Minimum wage reports in 8 industries in Massachusetts made from 1913 to 1916 show that about one-seventh (13.7 per cent.) of all the women from whom data were obtained were not living at home (Table 27). Laundry workers showed the highest per cent., boarding and candy workers the lowest. The question of food for working women living apart from family groups is, then, common to all industries and to all sections of the country. It is peculiarly urgent that the problem be understood in a city like Boston, where the

[1] Twelfth United States Census, 1900, Statistics of Women at Work, p. 222. In a study of women employed in department stores in Boston in 1915, only 10.2 per cent. of the 1,763 interviewed were found to be living "independently." See Unemployment among Women in Department and Other Retail Stores in Boston, Bulletin of the United States Bureau of Labor Statistics, No. 182 (January, 1916), pp. 33, 52, 64.

[2] Reports of the Massachusetts Minimum Wage Commission, 1914-16. The table includes only women from whom data as to living arrangements were available.

proportion of women boarding is large and where the community as a whole has assumed to an unusual extent the responsibility for the welfare of its workers.

Method of Investigation.

To discover what arrangements for obtaining food have been made by working women in Boston living away from their homes, and to learn how much food costs and what variety can be obtained for a given expenditure, was the object of this part of the investigation. The unit was the variety and cost of food for one week. The schedule contained questions concerning nationality, wages, occupation and amounts spent in one week for rent, laundry and meals, in addition to the inquiry as to food eaten each day.[1] Through cooperation with the Alumnæ Association of Simmons College, Boston, 48 schedules were obtained. These represented a rather high wage group among working women, and included 12 students. By means of personal visits made by investigators to women known to be living away from their families, the number of schedules complete enough to tabulate was increased to 273. The investigation extended from December, 1915, to April, 1916. The schedules secured through the Simmons College Alumnæ Association were filled out completely and sent into the office by mail. When a personal visit was made, the general information and menus of meals for the past two days were obtained. Most of the women could remember what they had eaten "to-day and yesterday," but launched into generalities when questioned as to previous days. A supplementary schedule containing spaces for the menus for one week was, therefore, left to be filled out from day to day, and sent in by the person interviewed. A large number of these were returned, partially or wholly completed, and bearing every mark of reasonable accuracy. When the menus for the six meals obtained by the investigator were compared with those on the returned schedule they were found to be surprisingly similar. Little or no tendency to enlarge on the variety of food could be discovered. The danger seemed rather to be that some of the food actually eaten would be omitted from the enumeration of articles.

The usual difficulties incident to finding women living apart from

[1] See Appendix A, No. 1.

family groups were encountered. Women "adrift" [1] have so few social affiliations that settlements, churches and clubs could afford the investigators little help. Moreover, many of them move frequently, and tracing them was rendered difficult by the general migratory character of rooming-house neighborhoods. The isolation

TABLE 28. — *Occupations of Two Hundred and Sixty-one Women living Adrift in Boston.*

Occupations.	Number.	Per Cent.
All occupations,	261	100.0
Professional service,	35	13.4
Artists,	2	.7
Investigators and social workers,	7	2.7
Teachers,	19	7.3
Trained nurses,	1	.4
Librarians,	5	1.9
Journalists,	1	.4
Domestic and personal service,[2]	30	11.5
Home and office cleaners,	1	.4
Laundresses,	26	10.0
Servants and waitresses,	3	1.1
Trade and transportation,	103	39.5
Forewomen,	2	.7
Office workers,	48	18.4
Saleswomen,	52	20.0
Packers and shippers,	1	.4
Manufacturing and mechanical pursuits,	91	34.9
Forewomen,	6	2.3
Dressmakers and seamstresses,	19	7.3
Milliners,	4	1.5
Semi-skilled operatives: —		
Candy factories,	10	3.8
Box factories,	5	1.9
Rubber factories,	1	.4
Shoe factories,	7	2.7
Bookbinderies,	2	.8
Lace and embroidery factories,	2	.8
Foundries,	3	1.1
Sewing trades,	31	11.9
Textile mills,	1	.4
No data,	2	.7

of a number of these women was marked. Long hours of work, coupled with the general habit of using what leisure remained for laundry, cooking and other household tasks, left little time or strength for making friends or forming personal ties of any kind. The hopelessness of the struggle was expressed frequently by the older workers, who sometimes refused to try to estimate the cost of food for the week. "I should go wild if I really knew what I pay for

[1] Adrift: not living as an integral part of a family group. See Report on the Condition of Women and Child Wage Earners in the United States, Vol. V., pp. 10–12.

[2] Not receiving food as part of wages.

food and rent. It takes all I make to keep me, I know that," said one. As she grows older, excessive timidity about looking for better work or asking for better pay, selfishness and indifference to anything outside the regular day's routine become characteristic of the woman worker without home ties.

Reports as to food eaten were obtained from 261 working women; these included menus for 1,077 breakfasts, 1,047 lunches and 1,028 dinners, in all, 3,152 meals, an average of 12 for each person. The number of items of food tabulated from the schedules was 21,462.

TABLE 29. — *Age and Birthplace of Two Hundred and Sixty-one Working Women living away from their Families.*

AGES.	Total.	NUMBER OF WOMEN BORN IN —					Not reported.
		United States.	Canada.	Great Britain.	Russia.	Other Countries.	
Total,	261	178	33	23	19	5	3
15 years and under 20,	6	3	1	–	2	–	–
20 years and under 25,	54	32	3	4	14	1	–
25 years and under 30,	58	40	7	7	3	–	1
30 years and under 35,	48	41	3	2	–	2	–
35 years and under 40,	32	19	8	3	–	2	–
40 years and under 45,	26	17	7	2	–	–	–
45 years and under 50,	12	7	2	3	–	–	–
50 years and under 55,	12	11	–	1	–	–	–
55 years and over,	5	3	1	1	–	–	–
Not reported,	8	5	1	–	–	–	2

These women lived in almost every section of Boston and its vicinity, received wages varying from $2 to $32 a week, and were engaged in most of the principal occupations mentioned in the census (Table 28). About one-third (34.9 per cent.) of those interviewed were in manufacturing or mechanical pursuits, two-fifths (39.5 per cent.) in trade and transportation, one-tenth (11.5 per cent.) in domestic and personal service, and one-eighth (13.4 per cent.) in professional service. Since the lists of women "adrift" came from a number of different sources, and since the workers interviewed varied so greatly in age, experience and traditions, the group probably represents fairly well the situation as a whole among the working women in

Boston. The wages and expenditure for the week of the interview were obtained. Since the study was made during the time of maximum employment in most industries, income and expenditure are typical of a normal condition of work.

Age and nationality as well as occupation are of importance in considering the problems of living which must be met by women away from their families. One hundred and ninety-three of the women interviewed, almost three-fourths of the total number, were twenty-five years of age or over, and 29 were forty-five or over. Relatively few girls less than twenty years of age are "adrift," partly because they usually earn wages too small to allow of this method of living, and partly because the families of most of them are as yet not broken up, and are unwilling to trust immature girls away from home. In discussing the food of these working women it is necessary to take into consideration this maturity; the kind of food needed for women over twenty differs from that required for growth by younger workers. Nationality also has an influence on the manner of living of the working woman "adrift." No Italians not living as an integral part of a family group were found. The parents of 114 of the women were born in the United States, 125 were of foreign and 19 of mixed parentage.[1] About one-fifth of the girls born in the United States, and somewhat more than one-third of those born outside the United States, were less than twenty-five years of age (Table 29). American girls and girls of Russian nativity left home somewhat earlier than those born in the other countries. Eighty-three of the women interviewed reported that they had been living away from their families since they were less than twenty years of age; 82 were from twenty to twenty-five, and 37 were from twenty-five to thirty years old when they left home. The average number of years away from home was between nine and ten. These facts should tend to discredit the statement that women can be expected to work a relatively short time, and that the problems of workers adrift can be of little real importance. If the 261 studied in Boston are a fair sample of the 24.4 per cent. (Table 26) of the working women living away from home, it is evident that a large proportion of the entire group will have many years of this lonely life.

How effectually many of these workers are barred from any hope of assistance from home in an emergency is shown by the proportion

[1] Data concerning parentage of 3 women were not available.

of women interviewed reporting both parents dead or living in other countries. The residence of the surviving parent was considered if either father or mother was dead. One hundred and eleven had no parents living; the parents of 41 others resided abroad. About three-fifths of the total number could, then, obtain no help from father or mother in case of illness. Forty-one others reported parents living in the United States outside of Massachusetts; the parents of only 52 resided in the State.[1] No doubt many of the women have relatives who would help in an extremity, but the length of time away from home is significant of the fact that this group of women is really "adrift," that their needs are not to be confused with those of a worker belonging to a family, nor are costs of living and standards identical with those of a family group. Whether or not this manner of life is wise for an individual and salutary for the community is not the question. Since these are the conditions it is necessary that any general action shall be taken with full understanding of them.

Expenditure for Food.

The expenditure for food is the largest item of any wage earner's budget. The amount spent by women interviewed in the course of this study depended on the wages received (Table 30). Eleven of the 261 workers spent less than $2 a week for food, and 8 of these were receiving less than $9.50 a week; 10 spent $6 or more a week; and 8 of these were receiving $15 a week or more. The largest number of women spent from $3 to $4 a week. The "mode," the sum that the greatest number expended, was $3.70, while the median was $3.65. There were as many women spending less than this sum as there were spending more than this sum. Half of all the women interviewed spent from $3 to $4.45 a week for food, one-fourth spent less than $3 and one-fourth more than $4.45. The arithmetic average was $3.63 a week (Table 31). Since median, mode and average all fall in practically the same group, the conclusion is justified that about $3.65 per week is a normal expenditure for a normal working woman. She will spend this much for food if she can afford it.

This conclusion agrees fairly well with the results of such investigations as have been made in the past. Thirty social workers in conference in 1910 estimated the cost of board for a woman adrift

[1] Sixteen did not report residence of parents.

to be not less than $4 a week.[1] In 1906 a study was made of working women "adrift" in Boston. The average weekly expenditure for food was found to be $3.19.[2]

The amounts spent for food by women earning less than $8 a week differ very little. Twenty-nine of the 52 women in this group spent less than $3, and all but 2 spent less than $4 (Table 30). The difference in average amounts spent for food by women earning less than $6 and by those earning from $6 to $8 is only 4 cents (Table 31). Two marked increases in the amounts occur, one of 21.3 per cent. between the groups earning, respectively, $6 and less than $8, and $8 and less than $10, and the other 17.9 per cent. between the group earning $14 and less than $16, and that earning $16 and more. The first increase doubtless means that better food and a more adequate supply is purchased; wages of less than $8 do not warrant an expenditure large enough to insure a really satisfying diet. The second increase probably indicates a decided change in the standard of living, with which absolute necessity has nothing to do. It is reasonable to say that while 33 women spent less than $2.50 a week for food (Table 30), $2.60 is the least allowance that should be made, since this is the average expenditure for the lowest wage group, — those receiving less than $5. Only 10 women spent $6 a week or more. The average expenditure for the high wage group, $4.68, probably represents a maximum food allowance irrespective of income, beyond which relatively few working women go. Between these extremes, at about $3.65, lies the comfortable average, the allowance for food which provides for an adequate and not extravagant diet. It is rather interesting to note that only when a woman reaches a wage of $10 a week does her average expenditure for food approximately equal this amount (Table 31). The percentage of income spent for food decreases rapidly in the low-wage group, and shows a smaller, fairly regular decline after an adequate income has been attained. The failure of the $16 to $18 group to show this trend probably is due to the fact that the small number included in the tabulation resulted in undue weight being given to a few individuals.

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[1] Report of the Commission on Minimum Wage Boards, Commonwealth of Massachusetts, House Document 1697, January, 1912, p. 222.

[2] Bosworth, L. Marion: The Living Wage of Women Workers, p. 17. Between 1907 and 1915, retail prices for food advanced in the North Atlantic Division 18 per cent. If Miss Bosworth's figures be increased 18 per cent., the average amount becomes $3.76, approximately the expenditure found in this study. See Retail Prices, 1907 to June, 1915, Bulletin of the United States Bureau of Labor Statistics, No. 184, November, 1915, p. 8.

TABLE 30. — *Number of Women living away from their Families expending Specified Amounts for Food, by Wage Groups.*

WEEKLY WAGES.	Total.	NUMBER OF WOMEN WHOSE WEEKLY EXPENDITURE FOR FOOD WAS —										
		Less than $2.	$2 and less than $2.50.	$2.50 and less than $3.	$3 and less than $3.50.	$3.50 and less than $4.	$4 and less than $4.50.	$4.50 and less than $5.	$5 and less than $5.50.	$5.50 and less than $6.	$6 and more.	Not reported.
Total,	261	11	22	28	53	48	38	26	13	8	10	4
Less than $5,	13	3	5	1	1	1	1	1	–	–	–	–
$5 and less than $6,	8	–	1	4	1	2	–	–	–	–	–	–
$6 and less than $7,	20	–	6	5	6	3	–	–	–	–	–	–
$7 and less than $8,	11	2	1	1	4	2	1	–	–	–	–	–
$8 and less than $9,	40	1	3	5	14	8	7	2	–	–	–	–
$9 and less than $10,	21	2	1	–	5	6	3	3	–	–	1	–
$10 and less than $11,	30	–	–	3	7	10	5	3	1	–	–	1
$11 and less than $12,	3	–	1	1	–	1	–	–	–	–	–	–
$12 and less than $13,	24	–	2	3	7	4	2	3	1	–	1	1
$13 and less than $14,	6	–	–	–	1	1	–	1	1	2	–	–
$14 and less than $15,	8	–	1	–	1	1	3	2	–	–	–	–
$15 and less than $16,	23	1	–	3	2	4	5	4	1	2	1	–
$16 and less than $17,	5	1	–	–	–	–	1	1	–	–	2	–
$17 and less than $18,	9	–	–	–	1	1	2	2	1	2	–	–
$18 and more,	35	–	1	2	2	3	7	4	7	2	5	2
Not reported,	5	1	–	–	1	1	1	–	1	–	–	–

TABLE 31. — *Per Cent. of the Average Weekly Income of Women living away from their Families spent for Food, by Wage Groups.*

AVERAGE WEEKLY WAGES.	Number of Schedules.	AVERAGE WEEKLY EXPENDITURE FOR FOOD.	
		Amount.	Per Cent. of Income.
Total,	261	$3 63	31.4
Less than $6,	21	2 73	68.6
$6 and less than $8,	31	2 77	41.4
$8 and less than $10,	61	3 36	39.4
$10 and less than $12,	32	3 55	35.2
$12 and less than $14,	29	3 80	31.0
$14 and less than $16,	31	3 97	26.9
$16 and less than $18,	14	4 68	27.7
$18 and more,	33	4 66	21.2
Not reported,[1]	9	–	–

[1] Including those not reporting wages and those not reporting expenditure for food.

EFFECT OF PLACE OF RESIDENCE ON EXPENDITURE FOR FOOD AND RENT.

Although Boston is made up of sections differing very greatly in character, place of residence seems to affect very little the amount of money spent for food (Table 32). The number of those paying less than $3.50 a week for board was in excess of the number paying more than $3.50 in the South End, pre-eminently the rooming-house district, and in South Boston, inhabited almost entirely by working-class families. The price of board in the suburbs seems to be, in general, higher than the price in Boston proper. If a working woman is obliged to economize in expenditure for food she will find one section of the city almost as expensive as another. The South End, with its numerous restaurants, delicatessen and boarding-houses, offers more easily found accommodations for women "adrift" than do other sections. In individual instances it was found possible to live more cheaply there and in South Boston and Roxbury than in other districts.

Place of residence does, however, decidedly influence the expenditure for rent (Table 32). Only one-fifth of the women living in the Back Bay and Fenway — the section offering accommodations

to great numbers of students as well as wage-earning women — paid less than $2.50 a week for rent. Residents of the suburbs were almost equally divided, about half paying less than $2.50 a week. On the other hand, the majority of women living in the South End, South Boston, the West End and Roxbury spent less than $2.50 a week for rooms. The largest number interviewed in Dorchester, Roxbury and South Boston spent less than $2. Of the 52 women paying less than $1.50 for rent, 17 lived in Roxbury and Dorchester, 10 in South Boston and 9 in the West End. Since these places, with the exception of the last, are at some distance from the business district, car fare must be added to rent, making the total expenditure approximately the same in these more distant places as in the South End.

Expenditure for rent varied less with changes of income than expenditure for food. The increase of both was fairly regular except at the point of transition from wages of $10 a week and less than $12, to $12 and less than $14, where the average amount of rent paid increased 72 cents, or 38 per cent. (Table 33). This probably indicates a change in the standard of living. Usually a woman moved to a more desirable neighborhood rather than to a better room in the same neighborhood. Women living in a given block generally were found to be receiving approximately the same wages. It is interesting to note that while the largest increase in expenditure for food came between the groups receiving, respectively, $6 to $8 and $8 to $10, rent did not increase materially until a much higher wage group was reached. Evidently the added income was used first for food, and expenditure for rent increased when the more imperative want was met.

In the case of food, Engel's law was substantiated, — the greater the income, the smaller the percentage of outlay. The second statement, that the percentage of income expended for lodging remains the same whatever the income, was not proved. The percentage for lodging varied with a general downward tendency, from 30.9 per cent. for women receiving $5 and less than $6, to 15.7 per cent. for those receiving $18 and more. In the study made in 1906 it was found that the variation ranged from 21.6 per cent. in the case of women earning less than $5 to 13 per cent. for women earning $15 and more.[1]

[1] Bosworth, L. Marion: The Living Wage of Women Workers, p. 17.

TABLE 32. — *Number of Women living away from their Families expending Specified Amounts for Food and Rent, by Places of Residence.*

RESIDENCE.	NUMBER OF WOMEN SPENDING FOR FOOD —			NUMBER OF WOMEN SPENDING FOR RENT —		
	Total.	Less than $3.50.	$3.50 and more.	Total.	Less than $2.50.	$2.50 and more.
Total,	261	113	142	261	153	106
Boston,	206	100	106	209	128	81
Back Bay,	24	10	14	25	5	20
South End,	70	36	34	70	42	28
South Boston,	21	12	9	21	19	2
West End,	25	10	15	25	15	10
Roxbury, etc.,[1]	66	32	34	68	47	21
Near-by suburbs,	35	11	24	35	18	17
Brookline,	9	4	5	9	4	5
Cambridge,	15	3	12	15	8	7
Somerville,	8	2	6	8	5	3
Other suburbs,	3	2	1	3	1	2
Suburbs, 10 miles or more distant,	14	2	12	15	7	8
Not reported,[2]	6	–	–	2	–	–

[1] Includes Roxbury, Allston, Charlestown, Dorchester, East Boston, Hyde Park, Jamaica Plain, Roslindale.

[2] Two did not report place of residence; 4 did not report amount expended for food.

TABLE 33. — *Per Cent. of the Average Weekly Income of Women living away from their Families spent for Rent, by Wage Groups.*

AVERAGE WEEKLY WAGES.	Number of Schedules.	AVERAGE WEEKLY EXPENDITURE FOR RENT.	
		Amount.	Per Cent. of Income.
Total,	261	$2 26	19.4
Less than $6,	21	1 84	46.1
$6 and less than $8,	31	1 49	22.2
$8 and less than $10,	61	1 66	19.5
$10 and less than $12,	33	1 88	18.6
$12 and less than $14,	30	2 60	21.2
$14 and less than $16,	31	2 86	19.4
$16 and less than $18,	14	2 99	17.7
$18 and more,	35	3 51	15.7
Not reported,[1]	5	–	–

[1] Including those not reporting wages and those not reporting amount spent for rent.

One means of economizing on rent is to take a roommate. The arrangement is frequently more a matter of convenience than of desire for congenial company. Each roommate usually went her own way, with little regard for the other. "I hardly ever spoke to the old lady I roomed with," remarked a shoe saleswoman. "She was peculiar in lots of ways, and kept all her things locked up in her trunk for fear I would know what she had. I was glad when she left, because the landlord didn't raise the rent on me, but let me have the room for what my share had been and 50 cents more." More than two-thirds (67.8 per cent.) of the women interviewed had no roommates, and one-fourth (25.3 per cent.) had one. The single room is the standard for expenditure, and working women as a rule are very unwilling to sacrifice their privacy.

Expenditure for Living Expenses.

While the amounts spent for board and room combined (Table 34) show a steady and fairly regular increase, this is not caused by similar regularity in increase of both board and lodging. Although these two items grow larger, as already noted, one does not increase in the same wage groups as the other. The increase for the two

Table 34. — *Per Cent. of the Average Weekly Income of Women living away from their Families spent for Food and Lodging, by Wage Groups.*

Average Weekly Wages.	Number of Schedules.	Average Weekly Expenditure for Food and Lodging.	
		Amount.	Per Cent. of Wages.
Total,	261	$5 89	51.0
Less than $6,	21	4 57	114.7
$6 and less than $8,	31	4 26	63.6
$8 and less than $10,	61	5 03	58.9
$10 and less than $12,	32	5 43	53.7
$12 and less than $14,	29	6 45	52.6
$14 and less than $16,	31	6 84	46.4
$16 and less than $18,	14	7 67	45.5
$18 and more,	33	8 18	37.2
Not reported,	9	–	–

items alternate, but changes in expenditures for food precede those for rent. Thus larger payments for food were found when the transition was made from the $6 to $8 wage group to the $8 to $10 group, and also when the woman began earning $16 to $18; while changes in rent were observed at the times when the woman passed from the $10 to $12 wage group to the $12 to $14 group, and when she earned $18 or over. The general assumption that increase in the price of living means simultaneous increase in expenditure for rent and for food was not found to be true of the women included in this study.

TABLE 35. — *Average Weekly Expenditures for Food and Lodging of Women living in New York City and in Ohio, by Wage Groups.*

WEEKLY WAGES.	NEW YORK CITY.[1]		OHIO.[2]	
	Number of Women reporting.	Average Expenditure for Room and Board.	Number of Women reporting.	Average Expenditure for Room and Board.
Total,	153	$5 13	208	$4 02
Less than $6,	12	3 50	22	3 31
$6 and less than $8,	43	4 41	72	3 79
$8 and less than $10,	54	5 04	68	4 09
$10 and less than $12,	22	5 79	46	4 63
$12 and less than $14,	6	6 43	–	–
$14 and less than $16,	14	7 14	–	–
$16 and less than $18,	1	6 50	–	–
$18 and more,	1	9 20	–	–

[1] Fourth Report of the Factory Investigating Commission, 1915, State of New York, Vol. IV., pp. 1539, 1775.

[2] Cost of Living of Working Women in Ohio, The Industrial Commission of Ohio, 1915, Report No. 14, p. 41.

The average expenditure was $5.89, first reached when the wages were from $12 to $14. The percentage of income spent for food and rent declined steadily with increasing wages (Table 34). The largest decrease came when a woman began to earn from $6 to $8 a week, and the smallest when she was paid $12 to $14 a week. The steady increase in the sum spent indicates that more generous wages were spent for better living conditions, not chiefly for clothes and incidentals, as has sometimes been claimed.

The expenditure for living expenses by working women was the subject of studies made in 1915 for New York City by the Factory Investigating Commission, and for Ohio by the Industrial Commission. The amounts spent for food and lodging by women in New York differ very little in the several wage groups from similar expenditure in Boston (Table 35). In the wage groups $8 to $10 and $12 to $14 they are almost identical. The New York figures are slightly higher in the groups earning $6 and less than $8, $10 and less than $12, and $14 and less than $16. In Ohio the prices were decidedly lower. In Boston women receiving from $8 to $10 a week paid on an average $5.04 for board and room, while in Ohio they paid an average of $4.09. No doubt the lower cost of food in the Middle West accounts for this difference in expenditure. New York and Boston retail prices are more nearly alike (Tables 4 and 5).

Living costs more for a woman "adrift" than for a member of a family group. In Massachusetts the cost of food was $1.35 a week for each individual in a normal family, while rent, light and heat cost 86 cents, a total expenditure for living expenses of $2.21.[1] No women living "adrift" were found in the course of this study whose expenditures were as low as this. Two sisters managed by the most rigid economy to keep expenses as low as $2.88 a week each. They lived in two small back rooms in an undesirable neighborhood, doing all their own cooking on a range which also supplied their heat. They bought meat and eggs from a relative in the country at wholesale prices, worked all day in a candy factory and spent their evenings in studying at night school or washing and ironing their clothes at home. Both had been going at intervals to a dispensary because of various troubles due to overwork. Evidently their health was suffering, but they could spend no more on living, because they were in seasonal work, and never in busy weeks earned more than $8. Young and unusually ambitious, they were mortgaging their future by a ceaseless round of work, and both were losing their fitness to fill positions paying better wages. None of the other women interviewed even approached an expenditure so low as theirs. Family standards of expenditure are not applicable to women adrift. Any sort of legislation inaugurated for the welfare of workers should take into

[1] Eighteenth Annual Report of the United States Commissioner of Labor, 1903, p. 540. If this amount is "weighted" by adding 18 per cent. to the price of food, the difference between retail prices from 1907 to 1915, the total living expenses would amount to $2.45. See Bulletin of the United States Bureau of Labor Statistics, No. 184, Retail Prices, 1907 to June, 1915 (November, 1915), p. 8.

account the fact that a woman living away from home earning less than $8 a week is economically below the standard maintained by the ordinary working class family in Massachusetts, a standard not commonly considered too high for the best welfare of the community.

Besides the expenditure for board and room, laundry may legitimately be considered a living expense. Women "adrift" economize consistently on this item. One hundred and twenty-three of the women interviewed did all of their washing and ironing, 4 others had their washing done free at the laundry where they were employed and ironed the clothes at home. Forty-nine women, many of them earning high wages, did part of their laundry; their average weekly expenditure was 36 cents. Only 80 women reported sending out all their washing, for which they paid an average of 54 cents a week.[1] Like food and rent, this expenditure increased as wages increased; the average for women earning less than $6 a week was 3 cents; for those receiving $10 to $12, 17 cents; for those earning $18 or more, 40 cents. Washing and ironing are done in the evening and on Sundays. There is some question as to whether working women should spend their brief leisure in this sort of work. The evident savings effected commonly outweigh in importance any possible future danger to health resulting from the greater strain of heavy evening work after long hours of regular employment.

The amounts spent by women in different wage groups for food, rent and laundry shown in Table 36 indicate a fairly regular increase in expenditure, with considerable individual variation. About one-tenth of the women spent less than $4 a week for all living expenses; all of these were earning less than $10. More than two-thirds (68.6 per cent.) spent less than $1 a day; this group included about one-fifth of the women earning $16 or more a week. The greatest number of women spent from $5 to $6. The amount spent by the "median group" was $5.74. The number spending less than this amount was the same as the number spending more than this sum. The average expenditure was $6.13.

[1] Three women sent their washing home by express. Two others furnished no information about laundry.

TABLE 36. — *Number of Women living away from their Families expending Specified Amounts for Food, Rent and Laundry, by Wage Groups.*

EXPENDITURE FOR BOARD, RENT AND LAUNDRY.	Total.	WOMEN WITH SPECIFIED EXPENDITURE FOR LIVING EXPENSES WHO EARNED —												
		Less than $5.	$5 and less than $6.	$6 and less than $7.	$7 and less than $8.	$8 and less than $9.	$9 and less than $10.	$10 and less than $11.	$11 and less than $12.	$12 and less than $14.	$14 and less than $16.	$16 and less than $18.	$18 and more.	Not reported.
Total,	261	13	8	20	11	40	21	30	3	30	31	14	35	5
Less than $3,	2	–	–	–	2	–	–	–	–	–	–	–	–	–
$3 and less than $4,	24	5	4	8	1	4	2	–	–	–	–	–	–	–
$4 and less than $5,	49	4	1	7	5	13	7	6	2	2	1	1	–	–
$5 and less than $6,	56	2	2	4	2	13	5	12	1	8	4	1	1	1
$6 and less than $7,	48	–	1	–	1	7	4	8	–	8	11	–	7	1
$7 and less than $8,	27	1	–	1	–	3	2	1	–	5	6	3	4	1
$8 and less than $9,	32	1	–	–	–	–	1	2	–	4	6	6	10	2
$9 and less than $10,	10	–	–	–	–	–	–	–	–	1	3	2	4	–
$10 and more,	9	–	–	–	–	–	–	–	–	1	–	1	7	–
Not reported,	4	–	–	–	–	–	–	1	–	1	–	–	2	–

Plans of Living.

Women living away from their families develop great ingenuity in devising methods of economical living. Since the expenditure for food always exceeds that for rent and laundry combined, plan of living means plan for obtaining food. The more usual of the plans adopted by the 261 women interviewed are shown in Table 37. The women paying least for food prepare all meals in their rooms, and carry their noon lunches to eat in their places of employment. Preparing meals in the room did not necessitate an expensive equipment; the usual custom seemed to be to buy what was absolutely necessary at the 10-cent store, and to dispense with all superfluous utensils and furniture. A one or two burner gas plate or oil stove on an oilcloth-covered box or table, dishes kept on the closet shelf or in a bureau drawer, a dining table that was sometimes a desk, sometimes a cutting table and sometimes the lamp stand, — these furnished all that was indispensable for bedroom housekeeping. The tablecloth was usually a newspaper or piece of wrapping paper,

Table 37. — *Average Weekly Wage and Average Weekly Expenditure for Food classified by Plans of Living of Women away from their Families.*

Places where Food was obtained.	Number of Women.	Average Weekly Wage.	Average Weekly Expenditure for Food.
Total,	261	$11 54	$3 63
Room, or room and workroom,	24	7 63	2 65
Room, or room and workroom and —			
Boarding house,	8	11 07	3 74
Restaurant,	47	13 67	3 84
Restaurant and boarding house,	5	9 20	3 44
Restaurant, or restaurant and workroom,	30	13 40	4 38
Restaurant, workroom and boarding house,	44	12 64	4 19
Boarding house, or boarding house and workroom,	54	8 87	3 23
"Home" [1] and —			
Room or workroom,	5	10 30	2 61
Restaurant,	2	10 00	5 25
Boarding house,	3	18 83	4 12
Co-operative housekeeping,	30	12 83	3 25
Not reported, [2]	9	–	–

[1] Home: meals eaten with friends and not paid for, or obtained during week-end visits to their homes.
[2] Including those not reporting wages and those not reporting expenditure for food.

occasionally a red table cover or white oilcloth. Service dishes were, as a general thing, dispensed with, the saucepan used in cooking serving as a vegetable dish and the paper sack in which prepared meat or cake had been purchased being used in lieu of a special plate. Some of the women who could afford kitchenette apartments had more care for details, but the crowded condition of many of the bedrooms where cooking was done made real housekeeping methods an absolute impossibility; the equipment was often meager and the service anything but dainty.

Obtaining all meals at a boarding house is somewhat more expensive. A boarding house is often managed by a woman who keeps no accounts and has no way of knowing whether she is gaining or losing money. Doing her own work she pays little for service. For these reasons the difference in amounts expended by women eating in their own rooms and those depending on boarding houses was somewhat smaller than might be expected. Several women boarding-house keepers were interviewed, and all acknowledged that they were covering their own expenses and that was about all. High-class roomers pay well, and many women give board in order to keep permanent and desirable lodgers. They say that all the profit is made on rooms, not on the food. Women who eat part of their meals at a boarding house and part at a restaurant and the rest in their rooms pay somewhat more.

The most expensive plan of living is at restaurants. A number of women, most of them receiving high wages, have adopted this method, because they are free to go where they please, and have not the trouble of deciding in advance what they will have to eat. One saleswoman remarked that she never ate any two successive meals in the same restaurant. "The food tastes better if you move around," she said. Several workers felt that there is need in Boston for more restaurants of the better type, with more restful atmosphere than can be found in most commercial places. A number expressed the wish for well-cooked food at moderate prices, which they said they had difficulty in finding. These women felt that they must conserve time and strength, and could not afford to do any of their own cooking, even if the rules of the houses where they lived permitted the practice.

The combination preferred by many of the highest wage group is partly restaurant living and partly preparation of meals at home.

Usually this means cooking of breakfast or breakfast and supper in their rooms, and lunching at a restaurant. Those who claim that the motive for housekeeping is quite as often the housekeeping instinct and the desire for a quiet, restful place in which to eat as the necessity for economy are doubtless correct in some measure. Women in all wage groups do both laundry work and cooking, although it is significant that 17 out of the 24 workers who prepared all of their own food were earning less than $9 a week. To know that meals may be cooked at home gives a pleasant sense of independence; but women who can afford to choose their manner of living prefer not to make the exertion all the time. About 60 per cent. of all the women prepared no meals in their rooms. Of the 58 women earning $15 a week or more, 33 went out for all meals, while 25 prepared some meals in their rooms. The latter preferred this manner of living, since their incomes were large enough to enable them to do as they pleased.

Some of these women doing light housekeeping buy raw materials and do all of the preparation. While many landladies make no extra charge for gas, the usual price seems to be about 50 cents a month. One woman showed with pride a shelf of jelly and marmalade put up by herself during her evenings. Having been reared on a farm in the Middle West she had a taste for preserving, and liked her own cooking best. As a rule, however, women living thus depend on delicatessen shops and bakeries for cooked supplies. On Wednesdays and Saturdays South End delicatessen stores sell hot baked beans at 20 cents a quart, and on Thursdays boiled dinner for the same price. A pint of boiled dinner, with its corned beef and vegetables, is quite enough for a meal for two persons. A bewildering variety of cooked meats and bake-shop cakes and cookies are always displayed. Some women purchase supplies at the markets on Saturday afternoons. The number of articles that can be cooked on a one or two burner gas plate is limited. Canned soups are a staple food, and, with bread and hermits from the bakery and oranges from the Italian at the corner, make an easily prepared meal. The difficulty of buying in small quantities is a real one: "You tire of your corn before you are able to eat up a can."

Women preparing all of their meals in their rooms expended only 60.5 per cent. as much for food as those eating always at restaurants. The difference is not necessarily due to variations in quality or

quantity of fare. The woman doing all of her own work paid nothing for service, "overhead charges," or restaurant keepers' profit, which obviously formed a considerable part of the price paid by the worker buying at a restaurant. The carefully kept records of the School Lunch Department of the Women's Educational and Industrial Union, a department pledged to sell noon lunches at cost to high school pupils, showed in 1914 to 1915 that 58.5 per cent. of the total expenditure had been for raw materials, 24.5 per cent. for wages and the rest for overhead expenses.

Women living at boarding houses pay only 21.9 per cent. more than those doing all of their own cooking. The lack of business training of landladies, previously noted, the less efficient service, the smaller variety of food offered and the lowered "fixed charges" account for the difference in price of restaurant and boarding-house living.

If a working woman must economize she is forced to do all of her own cooking. Again we are confronted with the question of the wisdom of this procedure, requiring a considerable expenditure of physical energy at the close of a working day. Whether in the long run it is profitable for a working woman who must depend on herself for advancement in her work, who must have strength for long hours of labor, extending as far into the future as she can see, to employ what leisure she has in washing, ironing and cooking, with consequent loss of rest and recreation, — this is a problem to be considered. Since 3 out of every 5 women interviewed did none of their cooking, and since women with good wages preferred an arrangement which allowed them to choose whether they should prepare their own meals or not, it is safe to assume that the majority of women have learned that for them the immediate saving is not worth the ultimate cost. Probably two-fifths of the women at work like housekeeping, and will do some of it whether or not the necessity for strict economy exists. A few of the women interviewed ate meals with friends at frequent intervals, with consequent saving in the cost of board. Some of them seemed to count on this method of reducing expenses, but these cases were too few and too irregular to be considered important.

Besides the ways of living just discussed, co-operative plans have been tried by a number of working women. Co-operative living meant, for purposes of this study, co-operation in the matter of food.

Thirty-one women, of all ages, reported living in this fashion, 7 of them with sisters, aunts or other relatives, and the remainder with strangers. The average wage of the 30 who reported on this matter was $12.83, although 8 of the women received less than $9 a week. The average expenditure for food was $3.25, for rent, $2.49. The amount paid for both, an average of $5.74, was lower than the amount paid by women falling in the $12 to $14 salary group (Table 34). The expenditure for living expenses represents 44.7 per cent. of the income, a lower proportion than that spent by any women except those earning $18 or more. Most of the women interviewed acknowledged the financial advantages of co-operative housekeeping, but seemed to lack the personal qualities which living in this fashion demands. Many were unwilling to give up their absolute independence, or were suspicious and feared that some one of the group might prove to be a shirker and increase the burdens of the rest. Some had tried the plan and found it a failure. The reasons for its lack of success were summed up by one sample maker in a waist manufacturing establishment. After remarking that she was 40 years old, she added, "You know, we get harder to live with as we become older. Ten years ago I was lots better tempered than I am now, when the least little thing irritates me."

The 12 students from whom schedules were obtained, all living in much the same way as the working women interviewed, paid an average of $4.09 a week for board, $3.78 for room, and 39 cents for washing, a total of all living expenses of $8.26 a week, about the sum paid by women in the highest wage group. Their food expenditure equaled that of the women earning $15 a week, while for room rent they paid more than any of the women except those in the highest wage group. The relatively high prices paid by the small number of students from whom information was received suggests the difficulty of finding desirable accommodations at a moderate price in a strange city. It means that the smaller expenditure made by most of the working women is the result of careful consideration and experience arising from necessity. The comparison also suggests the conclusion that many needy students probably are expending their energy in earning enough to pay for expensive quarters. A little knowledge of working-class conditions would enable them to live for much less without sacrificing any of the essentials of fairly comfortable living.

Expenditures of Women receiving Low Wages.

The wages mentioned throughout this discussion represent maximum employment income, since the schedules were collected during the busy season and in a year when most kinds of business were prosperous. Eleven of the women were not working when interviewed, 3 because of dull seasons in their industry and 4 because of illness. One had lately been discharged because she was considered by the foreman too old to work in the laundry where she had been employed. One claimed to have been thrown out of work by the operation of the minimum wage law.[1] Two candy workers whose weekly wage was somewhat less than $8 a week had saved enough to tide them over the dull season. The laundry worker also had savings enough to keep her for a little while, but had no prospect of permanent employment, and no relatives on whom she could depend. Another woman, a saleswoman, was being "trusted" by her landlady, with whom she had lived some time. Two of the women who were ill were receiving charitable assistance; another had been paid accident insurance; and the fourth had received help from her sister. Almost all industries have dull seasons of varying length; the teacher paid for ten months has the same kind of difficulties in making her salary cover annual expenses as do the worker in fur, the day cleaner and the home laundress. Other studies have shown in a striking way both variation between apparent and actual income and difficulties of dovetailing occupations.[2]

As far as could be learned by questioning the persons interviewed, savings are one method of meeting irregularity of employment, and credit the other. This means that the landlady waits for her money until the worker is able to earn enough to cover all arrears. If long illness comes, and no relative can be called on for help, the burden of support falls squarely on the community at large. Old age, as well as illness, has a sinister aspect for the worker. Two women well past middle age, met during the course of this study, were in a pitiable condition. With slight earning powers they were really "adrift," and unable to hope for any improvement in

[1] Two women did not give the reason for their unemployment.

[2] Andrews, Irene Osgood: The Relation of Irregular Employment to the Living Wage for Women, Fourth Report of the New York Factory Investigating Commission, Vol. II., pp. 497-635. Regularity of Employment in the Women's Ready-to-Wear Garment Industries, Bulletin of the United States Bureau of Labor Statistics, No. 183.

conditions. Like the man, the woman in industry is "scrapped" when she has reached an age at which a woman in the professions is nearing the very highest of her working powers. Illness, old age and the privations of dull seasons are all hard enough for members of a family group; women deprived of the safeguard which numbers assure feel that the situation as it stands is really hopeless.

Of the 21 women whose wages were below $6 a week, 7 were part-time workers and 2, day workers. Twelve were working regular hours at regular occupations, so that the sums they earned represented normal incomes. Eleven of the group were forty years of age or over. The expenditure for these workers is entirely abnormal. Those whose wages were less than $5 spent 143.5 per cent. of their income for board and rent; those receiving $5 and less than $6 spent 85.7 per cent. of the amount they earned for these living expenses. The former were subsidized by relatives, friends or the community at large, or were using up small savings; the latter, spending nine-tenths of all they earned on food and rent, were evidently potential receivers of charitable aid. Is it not reasonable to assume that on wages of less than $6 a week no woman living away from her family is really self-supporting? She is either a burden on the community already, or will become a burden when overtaken by the slightest misfortune, or when she reaches an age when her productive powers begin to weaken. No matter how great her ingenuity in making ends meet, she is sure to fail at last. And the income of $6 a week must be earned for every week in the year, if it is to be sufficient to cover the most imperative needs of living. The two-thirds of income spent for board and room by the women earning from $6 to $8 a week (Table 34) allows too narrow a margin to permit of either dull season or of even a few weeks' unemployment.

Variety of Food eaten in One Week by Working Women living away from their Families.

The increased expenditure for food accompanying increased wages is spent in securing a larger variety in the weekly menu. If coffee and tea be omitted from the list of foods consumed, this increase in variety is fairly regular (Table 39). Protein consumption varies the least from wage group to wage group. Foods characterized by car-

bohydrates and by minerals become increasingly important in the higher wage groups. Contrary to the general impression, working women seem to care very little for pickles, the average number reported representing about one serving in ten weeks. The consumption of cocoa and of milk depends very little on the wages received. Soup shows a general tendency to become more popular as women earn larger wages. The total variety of food is really surprisingly large; the average number of items in the menus for one week is about 70, and this average is reached when a woman begins to earn $10 a week. As has been shown (Table 31) the amount expended for food increased very greatly between the groups earning from $6 to $8 and from $8 to $10, respectively. This increase in expenditure means a more satisfying variety. The large increase in the variety of food consumed by women earning $16 to $18 may be due to personal idiosyncrasy, since the number of schedules tabulated for this wage group was small. If the group of food items be considered as a whole, one-fifth of all the foods consumed in a week were characterized by protein, more than two-fifths by carbohydrates, one-fourth by minerals, and the remainder were divided among soup, cocoa and milk.

Protein food was eaten about twice a day by all the women. The consumption of meat was large, an average of 8 times a week. No large group had meat less than once a day. Beef was eaten about the same number of times by women in all wage groups. The consumption of pork, including bacon and ham, was largest in the group receiving the lowest wage. Although fish is cheap and plentiful in Boston, it was eaten on an average somewhat less than once a week, about as frequently as mutton. Eggs, which were high in price at the time the schedules were obtained, were mentioned as often as beef. The women reported eating beans about once a week and cheese somewhat less than once in two weeks.

The consumption of carbohydrate food increased with the increase in wages. Not until a woman earned $8 a week did she reach the average, somewhat over 4 times a day. Bread, eaten at 6 meals out of 7, formed the largest part of this kind of food. It furnished one-third of the total variety eaten by the lowest paid women and one-fifth of the variety eaten by the best paid. While all kinds of bread were reported, white bread was regarded by most of the women as a staple. Cereals, including ordinary breakfast foods and rice, were

mentioned somewhat less than 3 times a week. Their use increased as wages grew larger. Several women keeping house in their rooms cooked their oatmeal in the evening, reheating it next morning while they were dressing. In the group of women earning $16 and less than $18, carbohydrate food was to some extent substituted for protein food. These women showed an especial liking for cereals and cake. Macaroni was seldom reported by any of the women. Sweets of all kinds appeared on the menus about 10 times a week. Cake formed from 5 to 7 per cent. of the total variety, pastry

TABLE 38. — *Frequency of Use in One Week of Tea and Coffee by Two Hundred and Sixty-one Women living away from their Families, by Wage Groups.*

WEEKLY WAGES.	Number of Women reporting.	AVERAGE NUMBER OF TIMES A WEEK THE WOMEN DRANK —		
		Both Beverages.	Tea.	Coffee.
Total,	261	13.1	7.4	5.7
Less than $6,	21	14.3	10.3	4.0
$6 and less than $8,	31	12.1	8.0	4.1
$8 and less than $10,	61	16.3	11.5	4.8
$10 and less than $12,	33	13.4	7.2	6.2
$12 and less than $14,	30	13.4	5.5	7.9
$14 and less than $16,	31	11.7	6.0	5.7
$16 and less than $18,	14	8.0	1.7	6.3
$18 and more,	35	10.5	3.9	6.6
Not reported,	5	10.6	.3	10.3

from 3 to 4 per cent. Because of their relatively high price, desserts, including puddings and ices, were eaten more by the high-wage than by the low-wage group. Women receiving less than $6 a week bought desserts about once a week, while those receiving $16 or more ate them 5 times. The favorite form of pastry was apple pie, often used as the main dish at luncheon. In the $16 to $18 wage group the average consumption of all sweets was twice a day; in the lowest wage group they were mentioned once a day (Table 41).

The largest variations were found in the consumption of vegetables and fruit (Table 42). Women in the low-wage groups ate few vegetables except potatoes. Like bread and meat, potatoes were eaten with similar frequency by women of all wage groups. The use of other vegetables increased steadily with increasing income. Salads appear about once a week on the menus of women earning $14 or more. Much has been written about the value of fruit to workers. The diets of working women interviewed for this study indicated that

TABLE 39. — *Frequency of Use in One Week of Certain Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of Two Hundred and Sixty-one Women living away from their Families, by Wage Groups.*

WEEKLY WAGES.	Number of Women reporting.	AVERAGE NUMBER OF TIMES A WEEK CERTAIN FOODS WERE EATEN.													
		TOTAL.		FOODS CHARACTERIZED BY —											
				PROTEIN.		CARBO-HYDRATES.		MINERAL SUBSTANCES.		SOUP.		COCOA, MILK.		PICKLES.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total,	261	69.1	100.0	14.8	21.1	31.5	45.6	18.0	26.3	2.4	3.5	2.3	3.3	.1	.2
Less than $6,	21	58.9	100.0	12.5	21.5	29.2	50.1	13.4	21.8	1.3	2.3	2.5	4.3	–	–
$6 and less than $8,	31	61.4	100.0	14.8	24.2	26.7	43.5	15.4	25.1	2.3	3.7	2.0	3.3	.2	.2
$8 and less than $10,	61	69.4	100.0	16.5	23.8	32.1	46.2	17.4	25.2	1.5	2.2	1.8	2.5	.1	.1
$10 and less than $12,	33	70.0	100.0	14.4	20.6	32.3	46.2	17.9	25.5	2.3	3.2	3.0	4.3	.1	.2
$12 and less than $14,	30	70.6	100.0	14.2	20.1	31.7	45.0	19.6	27.6	3.0	4.3	1.8	2.6	.3	.4
$14 and less than $16,	31	72.6	100.0	14.3	19.5	32.5	44.9	19.4	26.8	2.9	4.0	3.5	4.8	–	–
$16 and less than $18,	14	77.7	100.0	13.0	16.6	35.2	45.4	23.4	30.2	2.5	3.2	3.4	4.3	.2	.3
$18 and more,	35	73.9	100.0	15.4	20.9	31.7	42.8	20.9	28.2	3.7	5.0	2.0	2.9	.2	.2
Not reported,	5	61.2	100.0	10.9	17.8	31.2	51.1	14.4	23.5	3.2	5.2	1.5	2.4	–	–

the dissemination of this information has had the desired result, since fruit of some kind appeared on the menu six days out of seven in the average of the total group. Women earning $16 or more a week were the largest users of fresh fruits. Cooked fruits show considerable fluctuation in the different wage groups, with a general tendency toward a gradual increase with larger wages.

Coffee and tea, having little food value, were omitted from the general discussion of diet. They do, however, form a substantial part of the total variety (Table 38). Coffee is used more extensively and tea less extensively as wages increase. Coffee is more expensive and harder to prepare than tea, and is usually thought to require cream. Its use in the low-wage group is, therefore, restricted. The consumption of the two beverages taken together tends to become less as the women earn higher wages.

The diets of the very low-wage working women showed excessive consumption of bread and tea, a large use of potatoes, small use of other vegetables and of fruit, and lower consumption of protein. When wages reach a higher level, a general increase in variety is noticeable. Protein consumption tends to remain stationary, consumption of fruits, vegetables and sweets increases.

Dietary Habits of the Women Studied.

Working women who do light housekeeping often purchase the noon meal at a restaurant, making this the substantial part of the day's food. Others prefer a very light luncheon, and eat dinner in the evening. Sunday dinner, usually at noon, shows the greatest variety of food, especially vegetables, of any meal eaten during the week. Sunday breakfast, also, presumably because it may be eaten in a more leisurely fashion than week-day breakfasts, differs from them in variety. Many working women eat a morning meal closely resembling a "continental" rather than the traditional American breakfast. Only one woman interviewed omitted breakfast regularly. Ninety-six women drank no coffee for breakfast. The women who had it drank it an average of six mornings out of seven. One hundred and seventy-nine women mentioned no tea for the morning meal; the others used it an average of six mornings of the week. Some women who cared for neither coffee nor tea liked milk, cocoa or coffee substitutes. Only 12 women reported no beverage of any kind in the morning. The rest drank something practically

TABLE 40. — *Frequency of Use in One Week of Protein Foods and the Proportions which they constitute of the Total Weekly Range of Diet of Two Hundred and Sixty-one Women living away from their Families, by Wage Groups.*

WEEKLY WAGES.	Number of Women reporting.	AVERAGE NUMBER OF TIMES A WEEK FOODS CHARACTERIZED BY PROTEIN WERE EATEN.																			
		GRAND TOTAL.		TOTAL MEAT.		BEEF.		PORK.		MUTTON.		CHICKEN.		OTHER MEAT.		FISH.		EGGS.		CHEESE.		BEANS.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total,	261	14.8	21.1	8.4	12.0	3.0	4.3	2.2	3.1	1.1	1.5	.6	.9	1.5	2.2	1.5	2.1	3.3	4.7	.4	.6	1.2	1.7
Less than $6,	21	12.5	21.5	7.4	12.8	2.1	3.6	3.5	6.0	1.1	2.0	–	–	.7	1.2	1.7	2.9	2.2	3.7	–	–	1.2	2.1
$6 and less than $8,	31	14.8	24.2	8.4	13.8	3.1	5.1	2.2	3.6	1.3	2.1	.3	.5	1.5	2.5	1.8	2.9	3.1	5.0	.5	.8	1.0	1.7
$8 and less than $10,	61	16.5	23.8	8.7	12.6	3.1	4.4	2.2	3.2	1.0	1.5	.8	1.2	1.6	2.3	1.6	2.3	4.7	6.8	.2	.3	1.3	1.8
$10 and less than $12,	33	14.4	20.6	8.1	11.6	3.3	4.7	1.7	2.4	.8	1.2	.3	.5	2.0	2.8	1.4	2.0	3.8	5.5	.3	.4	.8	1.1
$12 and less than $14,	30	14.2	20.1	8.6	12.2	3.4	4.8	1.8	2.6	1.5	2.2	.8	1.1	1.1	1.5	.9	1.3	2.9	4.1	.4	.5	1.4	2.0
$14 and less than $16,	31	14.3	19.5	8.5	11.8	3.3	4.6	2.6	3.6	1.1	1.5	.7	.9	.8	1.2	1.0	1.4	3.3	4.3	.4	.4	1.1	1.6
$16 and less than $18,	14	13.0	16.6	7.4	9.6	2.0	2.6	1.8	2.4	.6	.8	1.0	1.3	2.0	2.5	1.4	1.7	1.8	2.3	1.3	1.6	1.1	1.4
$18 and more,	35	15.4	20.9	9.0	12.2	3.1	4.1	2.0	2.7	1.0	1.4	.9	1.2	2.0	2.8	1.9	2.5	2.4	3.2	.6	.9	1.5	2.1
Not reported,	5	10.9	17.8	5.1	8.4	1.3	2.1	.7	1.2	.2	.3	.9	1.5	2.0	3.3	1.0	1.6	3.3	5.4	.5	.8	1.0	1.6

TABLE 41. — *Frequency of Use in One Week of Carbohydrate Foods and the Proportions which they constitute of the Total Weekly Range of Diet of Two Hundred and Sixty-one Women living away from their Families, by Wage Groups.*

WEEKLY WAGES.	Number of Women reporting.	AVERAGE NUMBER OF TIMES A WEEK FOODS CHARACTERIZED BY CARBOHYDRATES WERE EATEN.													
		TOTAL.		BREAD.		CEREALS.		MACARONI.		CAKE.		DESSERT.		PASTRY.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total,	261	31.5	45.6	18.1	26.3	2.8	4.1	.5	.7	4.4	6.4	3.1	4.4	2.6	3.7
Less than $6,	21	29.2	50.1	19.3	33.0	2.5	4.4	–	–	3.7	6.4	1.1	1.9	2.6	4.4
$6 and less than $8,	31	26.7	43.5	18.2	29.5	1.2	2.0	.1	.1	4.0	6.6	1.3	2.2	1.9	3.1
$8 and less than $10,	61	32.1	46.2	19.6	28.2	2.9	4.2	.5	.7	3.8	5.5	2.3	3.3	3.0	4.3
$10 and less than $12,	33	32.3	46.2	20.1	28.7	2.0	2.9	.8	1.1	5.3	7.6	1.9	2.8	2.2	3.1
$12 and less than $14,	30	31.7	45.0	17.9	25.5	2.7	3.8	.2	.3	4.8	6.8	4.1	5.8	2.0	2.8
$14 and less than $16,	31	32.5	44.9	17.1	23.6	3.4	4.7	.7	.9	4.3	6.0	3.8	5.3	3.2	4.4
$16 and less than $18,	14	35.2	45.4	15.7	20.3	5.4	7.0	.4	.6	5.9	7.6	5.1	6.5	2.7	3.4
$18 and more,	35	31.7	42.8	15.0	20.4	3.2	4.3	.8	.8	4.6	6.3	5.1	7.0	3.0	4.0
Not reported,	5	31.2	51.1	17.1	28.0	3.7	6.1	.3	.5	5.2	8.5	4.7	7.7	.2	.3

every morning. The beverage and bread of some kind formed the breakfast of many of the women interviewed. Only 6 reported no bread for breakfast; the rest mentioned it every morning. Somewhat more than half the women, 137, ate no cereal in the morning. Evidently even the attractive advertising of breakfast-food concerns and the ease with which many of these cereals can be prepared do not serve to make their use universal.

Meat, fish or eggs were used at breakfast by about three-fourths (72.4 per cent.) of the workers. Seventy-two reported no one of these articles used at breakfast during the week. The rest had one or the other of them, and sometimes more than one, six mornings out of seven. Three-fourths of the women in professional service and in trade and transportation, and two-thirds of those in other occupations, ate the "heavy" breakfast indicated by the consumption of meat or other protein food. Forty-five reported the use of potatoes. One hundred and forty-six women used no fruit of any kind in the morning. The largest number of these were in manufacturing and mechanical occupations in which the working day begins early. Almost all the women in professional pursuits and in domestic and personal service, and half of those in trade and transportation, had fruit for breakfast. A number of local customs were revealed by the inquiry; 47 of the women reported having doughnuts, 34 baked beans and 5 pie in the morning. Doughnuts are served regularly in many families, and Sunday morning breakfast is considered quite incomplete by many if beans are not the principal dish. Pie for breakfast, at least among working women in Boston, seems to be more of a tradition than a reality. Most of the women interviewed ate a substantial and nourishing, if somewhat monotonous, breakfast, the choice of food conforming to habits and tradition rather than to intelligent selection.

Some discussion of individual menus for a week may be of interest exhibiting more concretely the variety of food eaten. Case A was a Russian Jewess, nineteen years of age, earning $6.50 a week as a candy packer. She spent $1.25 a week for room and $2.25 for meals. She prepared her own breakfasts and lunches and ate her dinner at a boarding house. Her menus for the week of Jan. 30, 1916, were as follows: —

	Breakfast.	Lunch.	Dinner.
Monday, . . .	Cocoa. Bread and butter.	Cream cheese sandwich. Orange. Apple.	Fried meat. Potatoes. Beans.
Tuesday, . . .	Cocoa. Bread and butter.	American cheese sandwich. Orange.	Meat. Soup. Potatoes. Bread.
Wednesday, . .	Cocoa. Bread and butter.	Egg sandwich. Orange.	Cooked meat. Soup. Beans.
Thursday, . . .	Cocoa. Bread and butter.	Salmon sandwich. Orange. Apple.	Fried meat. Potatoes.
Friday, . . .	Cocoa. Bread and butter.	Salmon sandwich. Orange.	Fish. Cooked meat. Beans.
Saturday, . . .	Tea. Cake.	Beef. Soup. Orange.	Baked potatoes. Bread and butter. Tea.
Sunday, . . .	Orange. Cocoa. Bread and butter.	Fried meat. Soup. Tea.	Fried egg. Milk.

Case B was a salesgirl of English parentage. She earned $8.50 a week in a department store, and spent $1 a week for her room and $3.95 for board, including lunches at a restaurant. Her other meals she ate at a boarding house. Her menu for the week ending March 22, 1916, was as follows: —

	Breakfast.	Lunch.	Dinner.
Thursday, . . .	Oatmeal. Toast. Tea.	Beans. Rolls. Pudding.	Fruit. Hash. Pickles. Cake. Tea.
Friday, ...	Oatmeal. Toast. Tea.	Creamed carrots. Potatoes. Bread and butter. Apple pie.	Baked macaroni. Tomato. Bread and butter. Fruit cake. Tea.
Saturday, . . .	Oatmeal. Toast. Tea.	Fish cakes. Mashed potatoes. Bread and butter. Custard pie.	Beef stew. Bread and butter. Cake. Tea.
Sunday, ...	Grapefruit. Chops. Beans. Bread. Tea.	Boiled dinner. Hot biscuit. Rice pudding. Tea.	Beans. Bread. Peaches. Cake. Tea.
Monday, . . .	Oatmeal. Toast. Tea.	Creamed carrots. Mashed potatoes. Raised biscuits. Apple pie.	Boiled dinner. Sliced peaches. Bread. Tea.
Tuesday, . . .	Oatmeal. Toast. Tea.	Beans. Biscuits. Custard pie.	Cold meat. Vegetables. Tea. Fruit.
Wednesday, . . .	Oatmeal. Toast. Tea.	Clam chowder. Bread and butter. Tapioca pudding.	Salmon loaf. Currant buns. Bread. Tea. Fruit.

TABLE 42. — *Frequency of Use in One Week of Foods containing Minerals and the Proportions which they constitute of the Total Weekly Range of Diet of Two Hundred and Sixty-one Women living away from their Families, by Wage Groups.*

WEEKLY WAGES.	Number of Women reporting.	AVERAGE NUMBER OF TIMES A WEEK FOODS CHARACTERIZED BY MINERAL SUBSTANCES WERE EATEN.											
		TOTAL.		POTATOES.		OTHER VEGETABLES.		SALADS.		FRESH FRUIT.		STEWED FRUIT.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total,	261	18.0	26.3	6.4	9.3	5.0	7.3	.8	1.2	4.3	6.3	1.5	2.2
Less than $6,	21	13.4	21.8	5.8	9.9	3.4	5.8	.7	.1	3.0	5.1	.5	.9
$6 and less than $8,	31	15.4	25.1	5.6	9.1	4.4	7.2	.2	.4	4.3	7.0	.9	1.4
$8 and less than $10,	61	17.4	25.2	7.2	10.3	4.8	6.9	.5	.8	3.5	5.1	1.4	2.1
$10 and less than $12,	33	17.9	25.5	6.1	8.7	4.4	6.0	.8	1.1	4.8	6.9	1.8	2.8
$12 and less than $14,	30	19.6	27.6	6.6	9.3	6.7	9.5	.4	.5	3.8	5.3	2.1	3.0
$14 and less than $16,	31	19.4	26.8	6.7	9.2	4.7	6.5	1.5	2.1	4.9	6.8	1.6	2.2
$16 and less than $18,	14	23.4	30.2	7.1	9.1	7.1	9.2	1.6	2.1	5.3	6.8	2.3	3.0
$18 and more,	35	20.9	28.2	6.4	8.7	5.6	7.6	1.6	2.1	5.9	7.9	1.4	1.9
Not reported,	5	14.4	23.5	3.4	5.6	5.0	8.0	1.7	2.8	2.6	4.3	1.7	2.8

Certain foods seemed uniformly omitted from the menus obtained for this study, among them cheese, cornmeal products, macaroni and rice. Cheese is a cheap protein food, and the others supply carbohydrates at a low cost. Their unpopularity may be due in part to their lack of distinctive flavors and in part to ignorance of their food value. One woman explained that she considered corn meal a "cheap" food, and she thought cheap foods were not as nourishing as expensive ones. Spinach appeared very seldom on the menu, and bacon was little used. It is hard to account for the small consumption of fish. Many people dislike the flavor of boiled fish, and few know how to make appetizing sauces to improve this flat taste. Frying and broiling seem means of preparation used but seldom.

Conclusions.

Although the women living away from their homes in Boston who were studied in this investigation were engaged in various occupations, and differed greatly in age and in nationality, they had evolved a real standard of living suited to their needs. As wages advanced, expenditures for food and for rent increased, but not at the same time. Given a larger income, a working woman spent it first for food, then for rent. The average for both was attained about the time the wages reached from $10 to $12 a week. No matter what her income, the average working woman did not spend more than $4.70 for food; in the matter of rent she did not reach a limit to expenditure that was so apparent; rent increased as long as wages increased. Place of residence affected the amount spent for rent, but influenced to no great extent the expenditure for food.

Wages of $6 a week will cover the average amounts spent for food and shelter, but will leave nothing for clothing, medical care, recreations and incidentals. With an income of $8 to $10 a woman can live in accordance with the standards of an ordinary working-class family. Women doing all of their own cooking spent the least for food; those living at restaurants spent the most. Working women forced to economize saved on service at every turn; they did their own washing and bought and prepared their own food. This saving on service was effected at the expense of physical energy at the close of a working day, which is usually longest for the lowest paid and necessarily most economical worker. While co-operative housekeep-

ing offers obvious financial advantages, there were found but few working women who adopted this fashion of living.

Judged by variety alone, the food of working women of all wage groups was adequate. Protein food was consumed practically the same number of times a week by all women except those in the group earning less than $6 a week. The use of sweets and vegetables increased with better wages, making the total variety eaten much larger in the high than in the low wage groups. The standard dietary was meat, bread and potatoes, which were consumed with much the same frequency by women of all wage groups.

Since women adrift cannot live as cheaply as members of a family group, family standards should not be considered in attempting to gain an understanding of the woman who is living away from her parents and relatives. The need of a clear comprehension of the situation of this class of women workers is apparent when it is realized that in Boston they form at least 24.4 per cent. of the whole number of women workers, a conservative estimate placing the number at between 18,000 and 20,000. When their needs are fully understood much of the present uncertainty with regard to the necessity for such measures as the minimum wage, old age and sickness insurance, and special legislation affecting women workers' hours, will disappear. An adequate comprehension of the whole situation must be reached by the woman worker herself as well as by the community as a whole.

CHAPTER IV.

THE FOOD OF WORKING WOMEN IN ORGANIZED HOUSES.

The purpose of this part of the study is, first, to discover the variety, adequacy and cost of food supplied to women living in organized houses under the management of persons interested in their welfare; second, to examine the general living conditions in the different houses; and third, to decide whether it would be well to encourage a greater development of this method of providing food and lodging for these women.

Information was obtained from 39 houses of which 22 are in Boston and vicinity and 17 are in Lowell, Lynn, Springfield, Waltham and Wellesley, Mass., and in New York City and Chicago.[1] Of the 22 houses in Boston and vicinity 4 accommodate students only. These will be referred to simply for comparison. The remaining 18, which provide accommodations for working women, will form the basis for this part of the study. These houses may be classified as follows: —

1. Subsidized houses where a part of the cost of maintenance is supplied by donations.
2. Co-operative houses where all expenses are shared by the occupants.
3. Houses which are self-supporting but not commercial.
4. Commercial houses, or those where a profit is expected.

1. There are 13 houses in Boston and vicinity which belong to the first class. They are designated as subsidized, since they pay no taxes and depend upon assistance from philanthropic individuals when the income from guests is insufficient to cover all expenses. Historically these represent the first type of organized houses. Their foundation dates back to the days of the early factory system, when the owners of large factories in small towns were compelled to provide homes for the young women whom they induced to come from the country districts to work in their mills. The houses were under the supervision of the factory owners, who dictated to the persons in charge the prices of room and board and the rules of management.

[1] For form of inquiry, see Appendix A, No. 4.

The boarding house established by the Waltham Watch Factory about fifty years ago is the only house of this kind that was visited. In this house, which is in charge of a matron, about 300 women are accommodated. Room and board are furnished at $3 per week. While this amount does not cover the cost of maintaining the house, the authorities consider it a paying investment. When rates as low as these are charged the women are not likely to seek accommodations elsewhere. This enables the factory to have close supervision over its women employees.

The factory boarding house has never existed in Boston. It was not until the period of the civil war that the establishment of organized houses for working women was agitated. With the scarcity of male labor due to the war, women came in large numbers to Boston. Because of low wages and being unacquainted with the city they were often compelled to live under deplorable conditions. Through missionary relief work these facts were brought to the attention of a group of philanthropic women. After many discouragements these women succeeded in raising sufficient money in 1866 to establish the first boarding house for working women in Boston. The object of this was to "provide for the temporal, moral and religious welfare of young women who are dependent on their own exertions for support."[1] Following this example similar houses were established by religious organizations and philanthropic individuals until 1906, when there were 12 subsidized houses in Boston and vicinity which offered accommodations to working women.

2. About this time there seems to have been a feeling on the part of some that subsidized houses were not the best type of boarding home. This resulted in the establishment of the second class, of which there are 2 in Boston. One was opened in 1906 and the other in 1913. These houses are managed co-operatively, the expenses as well as the responsibility of management being shared by the occupants. They aim to be entirely self-supporting, paying taxes as well as all other expenses.

3. A third class, differing slightly from the first and second, also had its beginning about 1906. These houses were founded by a corporation or group of individuals for the purpose of providing self-supporting homes for students and working women. As no returns on the investments are expected, the prices charged cover the cost of

[1] Wilson, Elizabeth: Fifty Years of Association Work, pp. 29, 32.

maintenance only, except in the case of 2, which also pay taxes. At present there are 5 houses of this class in Boston; one of these accommodates working women, the others students only. Similar experiments are being made by the Eleanor Association in Chicago and by the Young Women's Christian Association in Brooklyn and in New York City.

4. To the fourth class belong the houses which have been established for commercial purposes. There are 2 of these in Boston, which are occupied for the most part by professional women who pay higher prices than the average working woman can afford.

TABLE 43. — *Capacity of the Different Types of Organized Houses in Boston and Vicinity, and the Number of Occupants at the Time of the Investigation.*

TYPES OF HOUSES.	Capacity of House.	OCCUPANTS AT THE TIME OF THE INVESTIGATION.	
		Number.	Per Cent. of Capacity.
All the houses,	2,077	1,946	93.7
Subsidized,	1,660	1,544	93.0
Co-operative,	61	60	98.4
Non-commercial,	61	61	100.0
Commercial,	295	281	95.3

WOMEN LIVING IN ORGANIZED HOUSES.

The 18 organized houses in Boston and vicinity which furnish the basis of this study provide accommodations for 2,077 women, the number in the different houses varying from 14 to 850 persons. When the visits were made only 93.7 per cent. of these accommodations were utilized. As is shown in Table 43 the subsidized houses have the smallest percentage, which is no doubt the maximum, since the visits were made during the winter months when the number of guests is usually the largest. In a similar study recently made in New York City the percentage of accommodations utilized is about the same, being 93.6 per cent.[1]

Of the total number of women living in the 18 Boston houses it will be seen in Table 44 that 15.8 per cent. are students, 40.9 per

[1] Packard, Esther: A Study of Living Conditions of Self-supporting Women in New York City, p. 19.

cent. are engaged in occupations which belong to the general class of trade and transportation, while only 13.9 per cent. are engaged in manufacturing and mechanical pursuits. According to the United States Census for 1900 and 1910 the total number of women engaged in manufacturing and mechanical pursuits in Boston is larger than the number in trade and transportation. Table 45 shows that only

TABLE 44. — *Occupations of Women living in Organized Houses in Boston and Vicinity.*

Occupations.	Women living in Organized Houses.	
	Number.	Per Cent.
All occupations,	1,719[1]	100.0
Professional service,	347	20.2
Teachers and musicians,	79	4.6
Trained nurses,	232	13.5
Other professional service,	36	2.1
Domestic and personal service,	157	9.2
Laundresses,	2	.1
Servants,	99	5.8
Other domestic service,	56	3.3
Trade and transportation,	703	40.9
Office work,	543	31.5
Saleswomen,	118	6.9
Telephone operators,	41	2.4
Other occupations,	1	.1
Manufacturing and mechanical pursuits,	240	13.9
Confectionery,	2	.1
Clothing manufacturing,	70	4.1
Dressmaking, millinery, etc.,	119	6.9
Printing and publishing,	35	2.0
Other manufacturing pursuits,	14	.8
Students,	272	15.8

21.6 per cent. of the women in trade and transportation live away from their families, while the percentage of women living thus who are engaged in manufacturing and mechanical pursuits is 24.5 per cent. It was also found in an investigation of 1,086 establishments in 8 Massachusetts industries belonging to these classes that 53 per cent. of all the female employees earned less than $8.[2]

About 18 per cent. of the residents living in the subsidized houses earned less than $8. It will be seen that Institution One (Table 46),

[1] The occupations were not reported for 224, and 3 were unemployed; these must be added in order to make the total of 1,946 found in the organized houses at the time of this investigation.

[2] Report of the Massachusetts Minimum Wage Commission, January, 1916, Bulletin No. 11, p. 9; table computed from data in the Annual Report of the Massachusetts Bureau of Statistics, Statistics of Manufactures for the Year 1913, pp. 2–11; 84–123.

TABLE 45. — *The Proportion of Women Sixteen Years of Age and over in Selected Occupations in Boston, living away from their Families in 1900 and in 1910.*

Occupations.	Total Number of Women in —		Women living away from their Families.[1]		
	1900.[2]	1910.[3]	Number in 1900.	Per Cent.	Estimated Number in 1910.[4]
All the occupations,	45,882	68,733	12,372	27.0	18,612
Professional service,	5,827	9,365	2,873	49.3	4,618
Domestic and personal service,	2,865	4,178	927	32.4	1,354
Trade and transportation,	14,485	24,498	3,125	21.6	5,292
Manufacturing and mechanical pursuits,	16,181	21,162	3,969	24.5	5,185
Other occupations,	6,524	9,530	1,478	22.7	2,163

[1] Since the classification of occupations in the census for 1910 differs slightly from that of 1900, the number of women who are shown in the different classes as living away from their families is an approximation.

[2] Twelfth United States Census, 1900, Statistics of Women at Work, p. 222.

[3] Thirteenth United States Census, 1910, Vol. IV., pp. 540, 541.

[4] An estimate based on the number of women in the different occupations shown by the census of 1910, assuming that the percentage of women living away from their families in 1910 was the same as in 1900.

TABLE 46. — *Weekly Earnings of Eight Hundred and Eighteen Women living in Seven Subsidized Houses.*[1]

Houses.	Women earning —							
	under $8.		under $12.		under $16.		$16 and over.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
All the houses,	147	18.0	709	87.0	805	98.8	10	1.2
Institution One,	–	–	3	9.1	31	93.9	2	6.1
Institution Two,	10	22.2	43	95.6	45	100.0	–	–
Institution Three,[2]	31	100.0	31	100.0	31	100.0	–	–
Institution Four,	71	12.2	520	89.0	576	98.6	8	1.4
Institution Five,	6	12.0	46	92.0	50	100.0	–	–
Institution Six,	10	22.2	39	86.7	45	100.0	–	–
Institution Seven,[3]	19	70.4	27	100.0	27	100.0	–	–

[1] The total number of women living in the 7 houses was 1,072, of whom 232 were students, 4 were out of work and for 18 there were no data.

[2] In this house wages range from $4.50 to $7 per week.

[3] In this house wages were reported as ranging from $4 to $10 per week. The distribution has been estimated by classifying the occupations of residents.

which is a heavily subsidized house, has no guest who earns less than $8 per week, and only 9 per cent. of all the guests earn less than $12 per week. Institution Seven is also heavily subsidized, but none of its guests earns over $10, and some earn as low as $4 per week. Institution Three is subsidized to the extent of $1.275 per guest per week, but it will not accept any person who earns more than $7, and it has guests who earn only $4.50 per week. While such assistance is needed by some residents of these houses, it is evident that the majority earn wages which would make self-support possible.

While the majority of persons living in the organized houses are not those who receive low wages, they are the younger working women. Since there were no complete records regarding the exact ages of the guests, it was not possible to determine their average age. However, it is estimated that most of them are between twenty and thirty-five years of age, a few being older and some younger. This is due to the fact that many of the houses do not take women who are over thirty or thirty-five.

Food supplied in the Boston Houses.

In the efforts which were made to discover the food supplied to the 1,946 women living in the 18 organized houses, both personal visits and schedules to be filled in by those in charge were used. In addition to the general information shown in Table 47 the schedules called for the amount of raw food materials furnished during one week, the menus and the total number of people served for the same period. While 8 of the houses supplied complete information, part of it was estimated by the persons in charge.

In all of the houses there was lack of an adequate system of bookkeeping. In some of them no records whatever were kept regarding the amount of materials used, nor of the exact number of people served at each meal. In addition to these difficulties it was sometimes hard to gain any information because the persons in charge did not seem to realize the semi-public character of the houses. Publicity of facts was feared and a general dislike for statistics was expressed. On these grounds information was refused. In several cases at least six visits had to be made before the desired data could be obtained.

Much less difficulty was experienced in finding the variety of the food served. Menus showing a week's bill of fare were obtained from

TABLE 47. — *The Purpose and Management of Eighteen Organized Houses offering Accommodations to Working Women in Boston and Vicinity.*

NAME OF HOUSE.	Date of Foundation.	Founder.	Purpose.	Management and Support.	Limitations.	Number of Persons that can be accommodated.
Young Women's Christian Association, Warrenton Street.	1866	Group of women.	To provide for the temporal, moral and religious welfare of young women who are dependent on their own exertions for support.	Board of managers. Income from guests. Donations. Annual memberships of $1 each.	Women under 30 years of age earning $15 or less per week.	180
Temporary Home for Working Women.	1878	Miss Ellen Mason and others.	To provide a temporary home and secure employment for working women.	Board of managers. Income from laundry run by home. Donations.	Length of stay limited to 1 month.	21
Young Women's Christian Association, Berkeley Street.	1884	Group of women.	To provide for the temporal, moral and religious welfare of young women who are dependent on their own exertions for support.	Board of managers. Income from guests. Donations. Annual memberships of $1 each.	Women under 30 years of age earning $15 or less per week.	120
Bethany Union, . . .	1889	Mr. Joy, universalist.	To provide a home for self-supporting women at a minimum amount.	Board of managers. Income from guests. Donations. Annual memberships of $1 each.	None stipulated.	47
Brooke House, . .	1891	Stopford W. Brooke, unitarian.	To furnish home for young working women and students.	Board of managers. Income from guests. Endowment and donations.	None stipulated. Preference given to young women with limited means.	63
Young Women's Christian Association, Cambridge.	1891	Group of women.	To provide for the temporal, moral and religious welfare of the young women of Cambridge.	Board of managers. Income from guests. Donations. Annual memberships of $1 each.	Women under 35 years of age earning $12 or less per week.	57
St. Helena's House, . .	1892	Catholic Church.	To provide a home for working girls.	Board of managers. Income from guests. Few donations.	None stipulated. Intended for young women.	200
Frances E. Willard House, .	1897	Group of individuals.	To provide home for students and young working women earning low salaries.	Board of managers. Income from guests. Subscriptions and donations.	Women under 35 years of age and earning $7 or less per week.	40

TABLE 47. — *The Purpose and Management of Eighteen Organized Houses offering Accommodations to Working Women in Boston and Vicinity* — Concluded.

NAME OF HOUSE.	Date of Foundation.	Founder.	Purpose.	Management and Support.	Limitations.	Number of Persons that can be accommodated.
Franklin Square House,	1901	Group of individuals.	To provide a home for working girls at moderate cost.	Board of managers. Income from guests. Donations,	Women earning $15 or less per week.	1,000[1]
French Women's Christian Association.	1902	Group of individuals.	To provide home and secure employment for French-speaking girls.	Board of managers. Income from guests. Donations.	French-speaking girls.	14
Harriet Tubman House,	1904	Group of women.	To provide home for colored working girls and students.	Board of managers. Income from guests and rental from parlors. Donations.	Colored girls. Does not furnish board.	16
Young Women's Christian Association, Roxbury.	1906	Roxbury Baptist Church.	To provide home for working girls and to reach girls in the neighborhood socially and spiritually.	Board of managers. Income from guests. Donations. Annual memberships of $1 each.	None stipulated. Intended for young women and girls earning low wages.	30
Hemenway, The, 98 Tyler Street.	1906	Two women interested in self-supporting young women.	To provide a self-supporting home for young women working for low wages.	Board of directors and co-operative management. Self-supporting.	None stipulated.	25
Beal Nurses' Home,	1907	Mrs. Emily M. Beal.	To house nurses comfortably at moderate cost.	Board of directors. Self-supporting.	Only self-supporting women admitted.	225
Charlesbank Homes,	1912	Edwin Ginn.	To provide wholesome and sanitary homes for working people.	Board of managers. Self-supporting.	None stipulated.	61[2]
Hemenway House, 14 Warrenton Street.	1913	Two women interested in self-supporting young women.	To provide a self-supporting home for young working women.	Board of directors and co-operative management. Self-supporting.	None stipulated.	36
Wilcox Hall,	1915	Mr. William Wilcox and women of Malden.	To provide a home and social center for young women of Malden.	Board of directors. Income from guests. Annual memberships of $1 each.	None stipulated.	22
Priscilla,	1915	Cambridge Realty Company.	Business women's hotel.	Board of directors. Self-supporting.	None stipulated.	70

[1] This number includes employees, which average 150.

[2] Number accommodated at the time of the investigation.

all except 2 of the 18 houses. From one of these menus for 14 meals were obtained; from the other only one day's bill of fare was secured. The menus for Wednesday of the week reported by each house are presented in Table 48. Since these menus do not include any special meals, such as might be served on holidays, it is felt they are typical of the variety of food supplied in the several houses.

In a comparison of the meals served in the large and small as well as in the high and low priced houses, it is surprising to find how slight is the variation, the chief difference being that the large and high-priced houses serve a greater variety at each meal, permitting a choice of cereals, soups, fish and meats, and in some cases a choice of desserts. Soups as well as fruits and vegetables out of season are furnished in the more expensive houses. Those charging an average price of less than $4 supply meat from 11 to 19 times per week, and those charging the highest rates offer it from 11 to 21 times. The meats furnished consist chiefly of beef, both fresh and corned, and lamb, and 9 of the more expensive houses supply chicken once a week. Fish is served in most of the houses at least 4 times a week. Since the cost of meat is so much higher in Boston than in other large cities of the United States (Table 4) it would be better to buy less meat and substitute in its place the more frequent use of cheese and eggs. It is surprising to note that only 5 houses served cheese, and in only one of these is it served more than once a week. While most of the houses supply eggs once or twice a week, 3 of those charging the higher rates serve them from 5 to 10 times, and 3 of the least expensive houses do not furnish them at all. However, it is probable that all supply eggs more frequently when they are not so high in price.

Both fresh and canned fruits are served in all but one of the houses; 9 serve dried fruits, such as prunes, apricots and peaches, and in 7 of these they are served only once a week. The least expensive houses offer fruit of some kind from 6 to 8 times a week; the most expensive serve it from 9 to 12 times, and one house charging an intermediate price serves it only once a week. Apples in some form or other are the chief kind of fresh fruit offered, and in a few cases oranges, bananas, grapes and grapefruit are supplied.

All of the houses serve white potatoes from 8 to 14 times a week, other vegetables from 6 to 23 times, and 10 of them furnish sweet potatoes once or twice a week. The kinds of vegetables supplied during

TABLE 48. — *The Cost and Variety of Food served in Twenty Organized Houses in Boston and Vicinity.*[1]

Houses.	Amount charged per Week for Room and Board.	Average Cost per Capita per Week.	Average Number of Guests served per Meal.	Average Cost of Raw Food Materials per Person per Meal.	Average Number of Guests per Employee.	Meals served on Specified Day.		
						Breakfast.	Luncheon.	Dinner.
Subsidized Houses.								
Institution One,[2]	$4–$5	$5 21	43	$0.083	6.1	Baked apples; cream of rye; beef hash; white muffins; coffee or milk.	Luncheon not served.	Pea soup; crackers; fillet of flounder, tartar sauce; vegetable salad; cottage pudding; tea or milk.
Institution Two,	4 50–6	5 45	63	.094	4.8	Concord grapes; cream of wheat; eggs; finnan haddie; graham bread; hot rolls; coffee or milk.	Potato soup; beef hash; beets; pickles; Waldorf salad; squash pie or baked apples; tea or milk.	Chicken soup; roast chicken, cranberry sauce; potatoes; turnips; vanilla and coffee ice cream; tea or milk.
Institution Three,	3–4	4 97	33	.072	6.6	Oatmeal; egg omelet; creamed potatoes; corn bread; coffee.	Soup; crackers; apple sauce; cake; graham and white bread; tea.	Hamburg steak; mashed potatoes; lettuce; apple tapioca pudding.
Institution Four,	4 25–10	4 69	793	.072	5.3	Grapefruit marmalade; cream of wheat or puffed rice; bacon, fried or boiled egg; baked potatoes; rolls; tea, coffee or milk.	Barley broth or potage à la Milanaise; baked salmon or meat croquettes; mashed potato; green peas; cream puffs; tea or milk.	Barley broth or potage à la Milanaise; radishes; boiled pollock or corned beef; boiled potatoes; steamed cabbage; gingerbread, whipped cream; tea or milk.
Institution Five,	4 50–5	4 48	8	.066	4.0	Hot cereal; buttered toast; coffee.	Soup; roast beef; potatoes; beets; bread pudding.	Cold roast beef; potatoes; lettuce; prunes; tea.
Institution Six,	3	6 64	17	.068	2.4	Corn mush and milk; hashed brown potatoes; graham muffins and oleo; coffee.	Boiled salt cod; pork scraps; creamed carrots; bread and oleo; tea.	Hominy, syrup or milk; peaches; bread; gingerbread and oleo; tea.
Institution Seven,	3 75-4	–[3]	22	.077	7.3	Cream of wheat; boiled eggs; toast; jam; coffee, tea or milk.	Soup; cold roast pork; rhubarb pie; bread and butter; tea or milk.	Meat pie of meat, potatoes, carrots and onions; pickled beets; bread and butter; floating island; tea or milk.

Institution Eight,	4–6	–[4]	174	.069	4.4	Shredded wheat; fish balls; rolls; coffee.	Not reported.	Clear soup; finnan haddie; potatoes; tomatoes; rice pudding; milk.
Institution Nine,	4–6	6 50	252	.075	3.6	Stewed prunes; puffed wheat, shredded wheat, corn flakes or malt breakfast food; rolls; cornbread or toast; tea, coffee or milk.	Cream of vegetable soup; beans and brown bread; cocoanut custard; tea, coffee or milk.	Baked mackerel with dressing, or lamb stew; potatoes; spinach; lima beans; grape-nut ice cream; sponge cake; tea.
Institution Ten,	4–5 50	3 59	196	.070	7.0	Sliced bananas; rolled oats or choice of dry cereals; minced ham on toast; bran muffins; rolls; tea, coffee or milk.	Scotch broth; cottage pie; escalloped corn; apple sauce; gingerbread muffins; tea, coffee or milk.	Fried halibut; mashed potatoes; string beans; combination salad; chocolate blanc mange, whipped cream; tea.
Institution Eleven,	4 50–6	6 28	84	.086	7.0	Pettijohns; sausages; cream toast; graham muffins; coffee or tea.	Lamb pie or cold ham; potatoes; creamed parsnips; pickled beets; pineapple sherbet or apple pudding.	Soup; roast beef; browned potatoes; boiled onions; sherbet or pudding.
Institution Twelve,	3	–[4]	30	.077	4.3	Cream of wheat; Johnny cake; vegetable hash; tea or milk.	Mock bisque; toasted crackers; baked kidney beans; tea or milk.	Roast beef; onions; potatoes; biscuits; apple pie, cheese.
Co-operative Houses.								
Institution Thirteen,	4 50–5	4 40	25	.082	8.3	Oatmeal or shredded wheat; minced beef on toast; biscuits; coffee or tea.	Vegetable soup; potato and lamb hash; white turnips; squash; graham and white bread; lemon meringue pie; tea.	Fried cod; mashed potato; macaroni and tomato; graham and white bread; baked rice pudding; tea.
Institution Fourteen,	4–6	4 25	35	.081	11.7	Indian meal porridge; beef hash; rolls; coffee.	Split pea soup; toasted crackers; baked sausages; mashed potatoes; bread and butter; tea.	Fried haddock; mashed potatoes; buttered beets; lemon tapioca pudding; tea.

[1] The figures in this table are based on the latest annual financial report of each house which has been published, or on estimates made by the persons in charge.
[2] This house serves 15 meals a week; the others serve 21 meals.
[3] First annual report not yet published.
[4] Insufficient data.

TABLE 48. — *The Cost and Variety of Food served in Twenty Organized Houses in Boston and Vicinity* — Concluded.

Houses.	Amount charged per Week for Room and Board.	Average Cost per Capita per Week.	Average Number of Guests served per Meal.	Average Cost of Raw Food Materials per Person per Meal.	Average Number of Guests per Employee.	Meals served on Specified Day.		
						Breakfast.	Luncheon.	Dinner.
Student Houses.								
Institution Fifteen,	7 90	–[1]	200	.077	4.0	Hominy or corn flakes; milk toast; muffins; coffee or milk.	Egg salad; graham rolls; raspberries; chocolate cake; cocoa or milk.	Soup; baked cod; piccalilli; mashed potatoes; kidney beans; chocolate pudding; hard sauce.
Institution Sixteen,	7 75–15	–[2]	64	–[2]	4.0	Oranges; cold or hot cereal; boiled eggs; toast; muffins; coffee, cocoa or milk.	Corn chowder; cold meat or creamed oysters; boiled hominy; rolls; date and cheese salad; chocolate pudding, chocolate sauce.	Soup; pork chops; O'Brien potatoes; buttered beets; grapefruit salad; tarts.
Institution Seventeen,	6 50–10	–[2]	80	–[2]	–[2]	Fruit; cream of wheat or corn flakes; sausages; boiled eggs; graham muffins; coffee, cocoa or milk.	Fried fish; potatoes; radishes; macaroni and cheese; peaches and cookies.	Cream soup; roast beef; roasted potatoes; asparagus, cream sauce; lima beans; radishes; grapenut ice cream.
Institution Eighteen,	8–10	–[1]	169	.105	5.1	Hot or cold cereal; pears or grapes; bacon and corn bread; tea, coffee, cocoa or milk.	Tomato soup; lamb chops; creamed potatoes; celery; apple sauce; cake; tea, coffee, cocoa or milk.	Beef broth; roast beef; mashed potatoes; egg plant; ice cream; cake; tea, coffee, cocoa or milk.
Institution Nineteen,	9 56	–[2]	96	–[2]	6.4	Fruit; hot or cold cereal; boiled eggs; jam; hot or cold bread; coffee or cocoa.	Soup; frankfurts, mustard; potato salad; rolls; toasted Bostons and cream cheese; milk.	Soup; roast pork, parsley; potato; wax beans; apple sauce; coffee Bavarian cream.
Institution Twenty,	9 56	–[2]	81	–[2]	5.8	Apples; hot or cold cereal; bacon; creamed potatoes; muffins; coffee or cocoa.	Soup; meat in gravy; corn fritters; milk rolls; crackers and cheese; orange marmalade; milk.	Soup; chicken à la King; egg plant; Delmonico potatoes; cheese and pimento salad; grapes.

[1] Insufficient data.

[2] No data.

one week in the several houses vary in number from 5 to 13. They consist chiefly of string beans, peas, tomatoes, corn, squash, celery, onions and carrots, and baked beans are served from 1 to 4 times a week in all except 2 houses. Salads are used in 15 of the houses from 1 to 9 times a week; the more expensive houses frequently offer them in the place of vegetables. In 9 houses macaroni is also used as a substitute for vegetables once or twice a week.

Hot cereals are served for breakfast by all, and in 8 houses both hot and cold cereals are offered. The kind of bread supplied cannot be discussed, since none of the houses furnished complete information regarding this. All of the houses furnish hot beverages at least once a day. Coffee is served at every meal in one house, in 2 houses twice a day, in 11 houses for breakfast only and in one house it is served only once a week as a special treat. Two houses do not serve any tea; the others offer it from 3 to 21 times a week. In 11 of the houses milk may be had at all meals. The amount of food which will be served to each person at regular meals is not limited in any house. Guests are permitted to have as many servings as they desire. Since the food was not sampled in all of the houses the quality cannot be discussed. A comparison of the general variety and of the kinds of food served at each meal during one day will be found in Table 48.

Lunches are put up in 7 of the houses to be taken out by those who cannot return during the noon hour. These lunches consist chiefly of sandwiches, fruit and cake, and 2 furnish small bottles of milk. All aim to vary from day to day the kinds of sandwiches which they supply. One large house provides a choice of 12 different kinds of sandwiches, crackers, cake, fruit and chocolates. Each article is separately priced, and any combination may be chosen to the amount of 14 cents. In this house about 280 lunches are put up daily; of this number, which were served on a particular day, 176, or 63 per cent., represent choice of substantial and well-balanced lunches; 37 were all fruit or all candy, or both fruit and candy; and 67 were combinations of crackers, fruit, cake and candy. The following represents a typical lunch: —

1 ham sandwich,	$0.05
1 jam sandwich,	.03
1 orange,	.03
1 piece nut cake,	.03
	$0.14

These houses are to be commended for their successful efforts in securing a good variety of food. In a similar study in New York emphasis is placed on the necessity of planning meals with regard to attractiveness of combinations of food. "One of the first rules to be observed," says this report, "is to secure contrasts in color, consistency and flavor."[1] It also warns against serving the same meats and vegetables at two consecutive meals.[2] To this might be added that it is well to avoid serving similar menus on the same days of consecutive weeks. For instance, the menu which is offered on Monday should not be the same as was served on Monday of the previous week. The combinations of food offered from day to day in the several houses show that care has been taken to avoid unattractiveness and monotony.

Adequacy of the Food supplied.

Adequacy is perhaps more important than variety in the diet of working women. To ascertain whether the food offered is adequate it is necessary to determine whether it is of such character that each person may have the proper food values. The reports of the raw materials used in preparing the week's menus supplied were utilized for this purpose. As has been stated, 8 houses furnished the desired data. In 5 of these houses the quantities were estimated by the persons who planned the meals. Three of the houses gave the amounts of raw materials used during one month. In one case the information was in the form of monthly statements from the firms which furnish supplies. From these statements the amounts used during one week were ascertained. Another house, having a large central storeroom from which all supplies must be obtained by a written daily order, permitted all the food orders for one month to be copied. The menus served during the same period were also secured. By comparing storeroom orders and the menus for 7 consecutive days it was easy to estimate the amount of raw food materials used during one week.

Although every effort was made to secure complete records, the striking variation shown in Table 49 makes it doubtful whether the amounts are entirely correct. However, the information thus secured is as exact as could be obtained, where it is not possible to follow the

[1] Corbet, Florence R.: Dietaries for Charitable Institutions, State Board of Charities, New York, 1906, p. 21.

[2] *Ibid.*, p. 19.

TABLE 49. — *Amount of Protein and Value of Calories of Food furnished by Eight Organized Houses in Boston and Vicinity. Based on Supplies used during One Week.*

AMOUNT CHARGED PER WEEK FOR ROOM AND BOARD.	AVERAGE PER PERSON PER DAY.			
	Grams of Protein supplied.	Grams of Protein consumed.[1]	Value in Calories of Food supplied.	Value in Calories of Food consumed.
Institution One, $3 for 3 meals per day, . . .	76.5	68.9	2,180.8	1,962.8
Institution Two, $3 for 3 meals per day, . . .	81.0	72.9	2,702.7	2,432.4
Institution Three, $4 to $5 for 2 meals per day, .	91.5[2]	82.4[2]	2,665.8[2]	2,399.2[2]
Institution Four, $4 to $5.50 for 3 meals per day, .	65.1	58.6	1,955.3	1,759.8
Institution Five, $4.50 to $5 for 3 meals per day, .	79.1	71.2	2,542.0	2,287.8
Institution Six, $4.50 to $6 for 3 meals per day, .	111.2	100.1	3,722.2	3,350.0
Institution Seven, $4.25 to $10 for 3 meals per day, .	106.3	95.7	3,045.0	2,740.5
Institution Eight, $7.90 for 3 meals per day, . .	95.9	86.3	2,718.0	2,690.8

method used in certain dietary studies made in Philadelphia and Baltimore.[3] In making these studies the investigators spent a week at each institution. All stock on hand at the beginning of the week was weighed and recorded. An account was kept of all supplies purchased or taken from the storeroom, of materials on hand at the end of the week and of the weight of table waste each day. By deducting the amount wasted from the amount supplied it was possible to obtain an accurate estimate of the amount consumed per person for each day of the period studied.[4]

In obtaining the estimate of the food supplied in the Boston houses the amount of protein and the value in calories were calculated, and this was divided by the total number served, including in this number both guests and employees. Ten per cent. of the amount supplied was allowed for waste in serving, as this percentage of waste was found in the dietary studies to which reference has been made,[5] and has been accepted in similar studies by Ellen F. Rich-

[1] Amount supplied less 10 per cent. for table and kitchen waste.

[2] These figures are estimates based on the assumption that the 2 meals served per day represent three-fourths of the total amount of food eaten in 1 day.

[3] Smedley, Emma, and Milner, R. D., Dietary Studies in Public Institutions in Philadelphia, Pa., and Knight, H. L., Pratt, H. A., and Langworthy, C. F., Dietary Studies in Public Institutions in Baltimore, Md., United States Department of Agriculture, Bulletin No. 223.

[4] *Ibid.*, p. 9.

[5] United States Department of Agriculture, Bulletin No. 223, p. 49.

ards, Marion Talbot and Mary Swartz Rose. The results of this study show the striking lack of standardization of the dietary in these houses, as the protein supplied per person for one day varies from 65 to 111 grams, and the calories from 1,760 to 3,350 (Table 49).

The exact dietary needs of the residents of these houses cannot be determined, as the food requirements are dependent on such complex factors as the age and weight of the women, the degree of muscular activity of their occupations, and the amount of walking and standing during the day. Previous investigations indicate that the total bodily fuel needed would be 2,200 to 2,400 calories. In a care-

TABLE 50. — *Metabolism of Women engaged in Different Occupations.*[1]

Occupation.	Age.	Height.		Weight in Pounds.	Calories per Hour.		Total Calories per Day, Eight Hours' Work, Sixteen Hours' Rest.
		Feet.	Inches.		At Rest.	At Work.	
Hand sewer,	53	5	3	139	75	83	1,864
Hand sewer,	35	5	6	143	64	88	1,728
Machine sewer,	53	5	3	139	75	103	2,024
Machine sewer,	19	5	3	110	64	119	1,976
Wash woman,	43	5	3	125	75	285	3,480
Wash woman,	19	5	3	110	64	186	2,512
Waitress,	43	5	3	125	75	228	3,024
Waitress,	19	5	3	110	64	143	2,168
Bookbinder,	22	5	4	105	70	98	1,904
Bookbinder,	22	5	3	112	61	127	1,992

ful dietary study made in a home for aged women the average value of the food consumed by each person in one day was found to be 2,206 calories.[2] The younger, more active women of the Boston houses would require more nourishment. A recent careful calorimeter study of the amounts consumed in a day divided between 8 hours' work and 16 hours' rest gave the results reported in Table 50. As some additional allowance would be necessary on account of possible faulty assimilation, and because of the fact that residents of the organized houses often have a nine-hour work day, and rarely rest

[1] Quoted by Fisher and Fisk in How to Live, p. 195. The figures are the results of calorimeter tests by Becker and Hamalainen at the University of Helsingfors, Finland. For complete report see Skandinavisches Archiv für Physiologie, XXXI., Band 1, 2 u. 3 Heft. Leipzig, 1914.

[2] *Ibid.*, p. 53.

during the entire period of freedom from their wage-earning employment, a somewhat larger food supply would be required. Even these additional needs would not justify such an extravagant amount of food as is supplied in Institutions Six and Seven.

The dietaries in these houses show a tendency to an excessive use of expensive protein foods. Very few of their residents were at an age when protein food was needed for growth, and the majority were not engaged in occupations resulting in large muscular development. Their bodily needs would have been satisfied with 60 to 70 grams of protein per day, instead of the larger amounts supplied in the majority of the houses. The investigation was made during the colder months of the year, when the large consumption of protein may have been prompted by an instinctive desire to profit by its heating qualities. But few authorities would consider the amounts supplied desirable, and many would claim that the excess was positively injurious.

Cost of Food.

One of the chief points upon which information was desired was the actual cost of providing food for women living in these organized houses. In the attempts to get this information several methods were used; the houses were first requested to state the prices charged for board alone; second, to furnish data regarding all expenditures connected with the food as served; and third, to submit copies of their last published financial statements.

The first method did not give the exact information desired for two reasons, — first, because room and board are rated together; second, because, in establishing these rates, the same lack of business efficiency was evinced as was noted in the failure to keep accurate records of the quantities of raw materials used. In all of the subsidized houses there seems to be no definite basis for the rates charged. The persons in charge of the houses apparently make the rates agree with what they feel the women are able to pay. In a few of the houses there is a definite schedule of adjustment between wages and prices. Others objected to this arrangement because in the absence of accurate information it is difficult to know the wages each resident receives. The chief basis of variation in all of the houses is not the cost of food but the location, size and number of occupants of each room. The varying rates which are charged are shown in Table 48.

TABLE 51. — *Source of Proteins consumed per Person per Day in Eight Organized Houses in Boston and Vicinity. Based on Supplies used during One Week.*

HOUSES.	Number of Persons fed.	SOURCE OF PROTEINS IN GRAMS CONSUMED PER PERSON PER DAY.													
		TOTAL PROTEINS.		MEATS.		MILK AND BUTTER.		EGGS.		FRUIT AND VEGETABLES.		FLOUR AND CEREALS.		OTHER GROCERIES.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Institution One,	38	68.9	100	28.9	42.0	12.2	17.8	3.1	4.4	10.1	14.6	14.3	20.8	.3	.4
Institution Two,	24	72.9	100	25.3	34.7	10.2	13.9	1.0	1.4	11.2	15.4	22.5	30.9	2.7	3.7
Institution Three,	50	82.4	100	36.0	43.7	13.1	16.0	1.3	1.5	15.7	19.0	12.6	15.3	3.7	4.5
Institution Four,	224	58.6	100	23.4	39.9	10.0	17.1	1.0	1.7	4.2	7.2	19.0	32.4	1.0	1.7
Institution Five,	38	71.2	100	32.3	45.4	6.9	9.6	1.7	2.4	11.3	15.9	17.7	24.9	1.3	1.8
Institution Six,	99	100.1	100	42.7	42.7	9.2	9.2	1.6	1.6	20.1	20.0	23.1	23.1	3.4	3.4
Institution Seven,	943	95.7	100	41.8	43.7	14.2	14.9	3.7	3.9	16.2	16.8	17.3	18.1	2.5	2.6
Institution Eight,	225	86.3	100	47.7	55.3	13.1	15.2	3.2	3.7	7.7	8.9	12.4	14.4	2.2	2.5

When these rates do not cover all expenditures bazaars are held and donations solicited to make up the deficit. In the co-operative and self-supporting houses the prices charged are reckoned on the total expense of maintaining the house. These rates must be large enough to cover all expenses.

The second method of requesting definite data regarding the expenditures for raw food materials and for light, heat, laundry, service and supervision during one week or month proved as unsatisfactory as the first. In some of the houses there were no records to show the exact amounts expended for raw food materials during any definite period. Since there was no segregation in the records of expenses chargeable to the dining-room account for light, heat, laundry, etc., these amounts were only estimates. While 7 houses furnished all of the data, it was felt the information was not sufficiently accurate to make deductions possible for all of the houses.

Owing to the failure to obtain the exact information desired by the first and second methods, the plan finally used was to make computations from the last published financial statement of each house. The only expenditures in these statements which can be chargeable to food alone are those for "provisions and supplies." While it is realized that these amounts may contain the cost of supplies other than raw food materials, they were the only figures available for all of the houses. Upon these figures the average cost per person per day of raw food materials was calculated. This was done by dividing the amounts expended for "provisions and supplies" by the number of meals served in each house during the year, as given in the annual reports or by estimates made in the case of other houses, when the number of meals served was not given in their reports. In making these estimates it is assumed that houses serving 3 meals a day would serve 1,095 meals to each guest in a year, or when only 15 meals are served in a week, that 780 meals would be served to each guest in the same period. These factors when multiplied by the number of guests and employees give the estimated number of the total meals served in one year. While these estimates are fairly accurate, it is probable that the actual number of meals served during the year reported was somewhat less, since the investigation was made during the winter months, when the houses usually have the largest number of guests.

The variations of the cost of raw food materials in the several

houses, as is shown by these calculations in Table 48, were found, with the exception of Institutions Two and Eighteen, to be very slight. Institution Two is a heavily subsidized house, and serves somewhat elaborate menus, and Institution Eighteen is a house which accommodates students only, and does not serve any meals during the summer months when foodstuffs are usually the cheapest. These slight variations do not seem to follow any rule. For instance, in the larger houses where food can be bought in wholesale quantities, the raw materials do not cost less per person than in the smaller houses. There was no evidence to show whether this indicates that the smaller houses are more careful of waste or that the larger houses serve more expensive foods.

The average total cost of maintaining each house per capita per week was also estimated from these financial statements. This was done by dividing the total annual expenditures of the several houses by 52 times the number of guests living in each house when visited. The results of these calculations will be seen also in Table 48. By examining the average cost per capita in the several houses it will be noticed, with the exception of Institution Ten, that 2 of the self-supporting houses have the least per capita cost. This is no doubt due to the fact that the number of guests per employee is larger than in any other house, less service being required because the guests have a small share of the household duties to perform.

Since it has been seen that there is little variation in the average cost per person of raw food materials in the several houses, the variation of the total per capita cost of maintenance is probably due to the difference in the amounts expended for service as well as to methods of management. The savings, which are supposed to result from the advantages gained by dealing with large groups, are not evident when a comparison of the per capita cost in the small and large houses is made. This may be due in some houses to lack of good management, and in others to the fact that the buildings are old and do not have modern equipment, thus requiring more service.

The prices charged by some of the Boston houses, which are subsidized, are higher than those charged by 6 houses in Chicago and 2 in New York which are self-supporting. The Chicago houses charge from $3 to $5.50 for a room and 15 meals per week. They severally accommodate from 60 to 150 women, are self-supporting and pay a small return on the investment. One of the New York houses,

which accommodates 212 women, charges from $3.50 to $7 per week for a room and 3 meals per day, and is able to cover all expenses. The other New York house charges from $4.50 to $7.50 per week for room and 2 meals per day, and accommodates 326 guests. Until September, 1915, the prices charged by this house ranged from $4 to $6; with the advance in the cost of foodstuffs an increase of 50 cents per guest per week was found necessary. It is not only self-supporting, but pays 4 per cent. interest on the investment. This house and 1 commercial, the 2 co-operative and 2 self-supporting houses in Boston are the only houses of the 39 studied which pay taxes. While the price of foodstuffs in Boston is somewhat higher than in New York and Chicago,[1] it is not clear why 13 of the Boston houses must depend on endowments and donations to cover their expenses, when the houses just referred to can be self-supporting.

Serving of Food.

The variation in the equipment of the houses and the methods of serving foods affect both the cost of service and the value of the food supplied. Foods attractively served have not only an æsthetic value, but a physiological one as well. It is a generally accepted fact that attractiveness of service promotes the ease and rapidity of the assimilation of food by creating a pleasurable anticipation which causes the digestive fluids to flow more freely. There are a number of factors which influence both the attractiveness of service and its cost. Of these the most important are, first, the location and general appearance of the dining room; second, the methods of serving the food; and third, the time of service.

The location and general appearance of the dining room in the non-commercial houses is too often a secondary consideration. A room which is partly below the street level is very difficult to ventilate and to light properly. When ventilation is poor and little or no sunlight is admitted the room is likely to contain odors of stale cooking and to be damp and uninviting. A number of the houses have basement dining rooms with long institutional tables, giving the room an unattractive and unhomelike appearance. Several of the houses, however, have well-ventilated and well-lighted rooms, with curtains at the windows, plants or flowers and clean linen on the tables, which are mostly round, seating from 6 to 8 persons.

[1] See Table 4.

The second factor which plays an important part in this phase of the food supplied is the method of service. The two ways of serving food in the Boston houses are individual service and the family method. Eleven houses provide individual service at all meals, which means that the food is served in the kitchen in separate dishes, which are taken by waitresses directly to each guest. This insures hot food, but requires more service and more dishes than the family method. With two exceptions the latter method is used only in the smaller houses, and in 6 of these dinner only is served thus. By this method the food is placed by waitresses on the table in large dishes from which each person is served by the head. A unique method of service is used by a house accommodating 212 women which has recently been opened in New York City. In this house breakfast and lunch are served cafeteria style and dinner by individual service. At breakfast and lunch each article of food is priced separately, and those who pay board by the week are permitted to order to the amount of 20 cents for breakfast and 25 cents for lunch. Dinner is served in individual servings by waitresses who also act as chambermaids, since no dining-room service is required of them at breakfast and lunch.

The third factor is the time during which the meals are served. Since all of the women who live in these houses are not engaged in the same occupations, their hours for beginning work vary. In order to meet as nearly as possible the convenience of the guests, meals are served during different periods. Those for breakfast and lunch vary from three-fourths of an hour to two hours, and dinner from one to one and one-half hours. In 6 of the houses the latter meal is served at a stated time, when all guests are supposed to be present and thus form a family group. In some places a number of the waitresses are students, who give their services for certain hours each day in return for their rooms and board. This enables the houses to provide at small cost the extra amount of service needed when all guests are not served at the same time.

Factors influencing the Utilization of these Houses.

The disposition of women to avail themselves of the adequate and varied food supplied at such small cost is affected by other considerations, such as the general accommodations offered; the rules and the limitations regarding admission; the recreation provided; and the

accommodations for laundry and sewing. Most of the houses are attractive and homelike places in which to live. With one exception all of the subsidized and co-operative houses furnish both room and board. The one exception is a small house for colored women which furnishes rooms and a kitchen where cooking may be done. Other non-commercial and commercial houses either furnish rooms and a restaurant where meals may be secured, or rooms which have light-housekeeping accommodations.

Since most of the subsidized houses were founded by religious organizations, or by persons with a religious motive in view, some of the rules governing those who may be admitted show traces of this influence. While none of the houses has any stipulated religious limitations, some of them discriminate against women of certain religious beliefs, who they feel will not be in sympathy with their custom of conducting daily prayers. In two of the smaller houses all guests are required to be present at these services; in other houses, which follow this custom, attendance is optional.

Aside from these customs which affect the religious liberties of the guests there are other rules which are resented by some. For instance, many women do not like to feel that they must be in at a certain hour in the evening, or explain why they were not in at that time. Some of the houses also require all applying for accommodations to furnish names of one or more persons who will vouch for their good characters. Women who are strangers in the city, or who have lived independent lives for some time, dislike to have their friends troubled by a request which seems to them unnecessary. The fact that a number of the houses are known to be subsidized makes some people feel that they are undesirable places in which to live. A self-supporting woman does not like to feel that she is a recipient of charity. While these conditions are disliked by some, they are welcomed by others. There are many young women who come as strangers to the city, and are grateful to find a home where such protection is offered and a place where living can be secured at such low rates.

Aside from these rather personal feelings regarding the houses there are other reasons which limit the women who may live in them. With two exceptions the houses aim to reach only young women receiving low wages. Three houses state that they will not take women earning over $15 per week; one house will not take any one

earning more than $12, and another limits its accommodations to women earning $7 and less per week. There is an age limit in 4 houses over which no one will be admitted as a permanent guest. In 2 houses this is thirty years and in the others thirty-five.

All of the houses make efforts to furnish some forms of recreation for their guests. Most of them provide some sort of a library with books, current magazines and daily papers. All have one or more parlors where callers may be received, and some of the large houses have small parlors which may be engaged in advance. A large room or recreation hall is provided where guests may assemble for parties, dances or entertainments. In some of the houses amusements are furnished as often as once in every two weeks, and in others special entertainments and parties are given at least twice a year.

In addition to the small charge made for room and board there are other accommodations which offer the guests opportunities for reducing the cost of living. All of the houses provide laundries where both washing and ironing may be done. Two charge 10 cents and one charges 15 cents each time the laundry is used; the others permit its use free of charge. With one exception all furnish one or more sewing machines for free use of the guests. That these accommodations are appreciated is shown by the fact that they are used by one-half to three-fourths of the guests.

Every effort is made by these houses to promote the health of their guests. In 3 of them a physician gives his services free or for a moderate charge. Four provide a trained nurse; one large house has a well-equipped infirmary with trained nurses constantly on duty; and all keep medicines for emergencies.

Conclusions.

Notwithstanding these facts there are no long waiting lists of women desiring admission. As was shown in the early part of the chapter the houses when visited were not filled to their capacity, and during the summer months the number of vacancies is often quite large. With a single room and board to be obtained for $6 and less per week, and accommodations which cannot be secured in any private boarding house for the same money, why are these houses not flooded with persons desiring admission? No definite answer can be given. The fact that most of the houses depend upon their guests or other interested persons to inform women of their existence, instead

of advertising their accommodations, as well as the rules and limitations already discussed, may have something to do with their failure to attract a larger number of women.

While the houses should be criticized for the unbusinesslike way in which many of them are managed, it must be recognized that they have performed a noble service to the working women of Boston. The food provided seems to be of a sufficient variety and of an adequate amount; the accommodations offered cannot be found at the prices charged in any private boarding or lodging house; the limitations explained do not appear unreasonable; and the value of the protection offered to young women who come as strangers to the city cannot be overestimated.

CHAPTER V.

FOOD OF CERTAIN DISPENSARY PATIENTS.

The selection of food made by women suffering from preventable diseases, generally conceded to be related to diet, is an interesting phase of this study of the food of working women. Since the dispensaries of Boston have educated the public to make use of the advantages offered, it seems probable that low-wage women suffering from ill health would seek their assistance. The variety and character of the food selected, habits of food consumption, hygienic habits and home and work conditions will be considered in their relation to the health of these women.

Patients coming to Dispensaries.

In order to appreciate the significance of the 126 cases studied in detail some consideration of dispensary patients as a group is neces-

Table 52. — *Patients coming to Eight Dispensaries in Boston classified by Number of New Patients and Total Number of Visits from All Patients in One Year.*[1]

Dispensary.	Total Number of Visits.	New Patients.
Total,	450,361	90,132
Massachusetts General Hospital, Jan. 1, 1915, to Dec. 31, 1915,	190,627	29,213
Boston Dispensary, Oct. 1, 1914, to Sept. 30, 1915,	122,776	25,694
Carney Hospital, Dec. 1, 1913, to Nov. 30, 1914,	50,992	15,506
Peter Bent Brigham, Jan. 1, 1914, to Dec. 31, 1914,	30,434	8,347
Mount Sinai Hospital, Jan. 1, 1914, to Dec. 31, 1914,	27,680	5,566
Cambridge Hospital, Jan. 1, 1915, to Dec. 31, 1915,	6,647	1,985
Maverick Dispensary, Sept. 1, 1914, to Aug. 31, 1915,	7,044	1,960
New England Dispensary for Women and Children, Oct. 1, 1914, to Sept. 30, 1915,	14,161	1,861

[1] Data obtained from the Fifty-third Annual Report of the New England Hospital for Women and Children, its Training School for Nurses and Dispensary, Sept. 20, 1915, p. 30; One Hundred and Second Annual Report of the Trustees of the Massachusetts General Hospital, 1915, Section B, p. 67; Report of the One Hundred and Nineteenth Year of the Boston Dispensary, 1916, p. 49; Fifty-first Annual Report of Carney Hospital, 1914, p. 20; First Annual Report of the Peter Bent Brigham Hospital, 1915, p. 15; Thirteenth Annual Report of Mount Sinai Hospital, 1915, p. 15; Report of the Trustees of the Cambridge Hospital, January, 1916, p. 49; Sixth Annual Report of the Maverick Dispensary, 1915, p. 6.

TABLE 53. — *New Patients classified by Age and Sex. Data from Four Dispensaries.*

DISPENSARIES.	TOTAL.		UNDER 16 YEARS OF AGE.				16 YEARS AND OVER.			
			GIRLS.		BOYS.		WOMEN.		MEN.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent
The 4 Dispensaries,	10,717	100	1,522	14.2	1,541	14.4	3,897	36.4	3,757	35.0
Boston Dispensary, Jan. 12, 1915, to June 6, 1915,	4,804	100	809	16.9	779	16.2	1,538	32.0	1,678	34.9
Mount Sinai Hospital, July 2, 1915, to Mar. 1, 1916,	2,647	100	466	17.6	500	18.9	1,128	42.6	553	20.9
Massachusetts General Hospital, Feb. 8, 1916, to Mar. 8, 1916,	2,015	100	206	10.2	206	10.2	660	32.8	943	46.8
Peter Bent Brigham, Jan. 8, 1916, to Mar. 7, 1916,	1,251	100	41[1]	3.3	56	4.5	571	45.6	583	46.6

[1] No children under twelve years of age were admitted.

sary. The records of the new patients coming to 4 dispensaries during periods of one to eight months were tabulated (Tables 52–57). The 9 dispensaries[1] in Boston from which cases were selected reach a large number of people, as is shown in Table 52. Although the estimated cost of the service ranges from 33 to 49 cents a visit,[2] a fee of only 10 cents is charged in order to reach the group most in need of medical treatment. Wage-earning women formed only one-ninth (11.6 per cent.) of the total attendance (Table 54). The high percentage of Russian Jews and others of foreign birth, shown in Table 55, makes it evident that nationality is an important consideration in discussing the diet of this group. The largest proportion were young, unmarried women engaged in manufacturing pursuits (Table 56). Cases for this study were found in the medical departments (Table 57). About one-third (36.7 per cent.) of the women coming to the dispensaries were referred to the medical departments, and the several occupation groups were proportionately represented in this number. Women in domestic service who were not included in this study formed two-fifths (40.4 per cent.) of the attendance at the medical departments.

Scope and Method of the Study.[3]

Some 20,000 records covering periods ranging from three to six months for each of the 9 dispensaries were examined. From these records 192 cases of women in industry suffering from preventable diseases possibly complicated by diet were selected for further study. Sixty-six of these cases were not included in this study, as 51 could not be located and 15 were not pertinent. By personal visits information was obtained from 126 women. In these interviews 2 schedules were used, — the first concerning the food, the second, an inquiry into social and industrial conditions.[4] Information for form of inquiry No. 5, as well as menus for two days, were obtained at the time of the interview. The method of keeping this food schedule

[1] All dispensaries in Boston were visited, though complete records were available only from these 9 dispensaries.

[2] Massachusetts General Hospital, One Hundred and Second Annual Report of the Trustees, 1915, Section B, p. 22; Mount Sinai Hospital, Thirteenth Annual Report, 1915, p. 15; Peter Bent Brigham Hospital, First Annual Report, 1915, p. 16.

[3] For forms of inquiry, see Appendix A, Nos. 5 and 6.

[4] The questions on the second schedule were suggested by the one used in a study made by the Massachusetts General Hospital of the hygienic conditions of working girls who came as patients to the hospital. All unmarried girls under twenty-one (80) who came to the medical department during eight months were studied. Sixth Annual Report of the Social Service Department of the Massachusetts General Hospital, 1912.

TABLE 54. — *Women Sixteen Years of Age and Over classified by Participation in Gainful Occupations. Data from Four Dispensaries.*

DISPENSARIES.	TOTAL.		WOMEN NOT IN GAINFUL OCCUPATIONS.				WOMEN IN GAINFUL OCCUPATIONS.	
			MARRIED.		SINGLE.			
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
The 4 dispensaries,	3,897	100	2,489	63.9	170	4.3	1,238[1]	31.8
Boston Dispensary, Jan. 12, 1915, to June 6, 1915,	1,538	100	794	51.6	54	3.5	690	44.9
Mount Sinai Hospital, July 2, 1915, to Mar. 1, 1916,	1,128	100	957	84.8	13	1.2	158	14.0
Massachusetts General Hospital, Feb. 8, 1916, to Mar. 8, 1916,	660	100	406	61.5	39	5.9	215	32.6
Peter Bent Brigham, Jan. 8, 1916, to Mar. 7, 1916,	571	100	332	58.1	64	11.2	175	30.7

[1] Eight of the women in gainful occupations were under sixteen years of age. For marital condition, see Table 56.

TABLE 55. — *Female Dispensary Patients in Gainful Occupations, classified by Nativity and Age. Data from Four Dispensaries.*

NATIVITY.	TOTAL.		Under 16 Years.	16 Years and under 21.[1]	21 Years and under 25.	25 Years and under 30.	30 Years and under 35.	35 Years and under 40.	40 Years and under 45.	45 Years and under 50.	50 Years and over.
	Number.	Per Cent.									
Total,	1,238	100.0	8	334	258	145	110	93	84	63	143
United States,	549	45.1	6	147	120	65	51	48	40	26	46
Russia,	228	18.7	1	120	65	22	9	4	4	–	3
Ireland,	195	16.0	–	11	30	29	24	19	19	16	47
Canada,	109	8.9	–	13	14	10	13	11	11	10	27
England,	36	3.0	–	4	4	2	4	1	5	7	9
Italy,	17	1.4	–	8	6	–	2	–	–	–	1
Austria,	12	1.0	–	5	–	2	1	–	1	–	3
Sweden,	12	1.0	–	2	2	2	–	2	1	1	2
Germany,	10	.8	–	1	2	3	1	2	–	–	1
Scotland,	9	.7	–	1	1	2	1	–	1	1	2
Syria,	9	.7	–	2	–	4	–	1	1	–	1
Finland,	6	.5	–	2	1	1	2	–	–	–	–
France,	5	.4	–	1	1	–	1	2	–	–	–
Roumania,	5	.4	–	4	1	–	–	–	–	–	–
Poland,	4	.3	–	1	2	–	–	1	–	–	–
Other foreign countries,[2]	14	1.1	–	6	4	1	–	1	1	1	–
Not reported,	18	–	1	6	5	2	1	1	–	1	1

[1] The Massachusetts laws require work certificates for minors under twenty-one years of age, and enforce medical examinations for those under sixteen.

[2] Barbadoes, Greece, Turkey, 2 cases each; Armenia, Belgium, Bermuda, Denmark, New Zealand, Norway, South Africa, West Indies, 1 case each.

TABLE 56. — *Female Dispensary Patients in Gainful Occupations, classified by Occupation and Marital Condition. Data from Four Dispensaries.*

OCCUPATIONS.	TOTAL.		SINGLE.		MARRIED.		WIDOWED.		DIVORCED OR DESERTED.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total,	1,238[1]	100	878	71.3	173	14.0	151	12.3	30	2.4
Manufacturing,	504[1]	100	404	81.2	44	8.8	44	8.8	6	1.2
Telephone operating,	20	100	18	90.0	2	10.0	–	–	–	–
Selling,	87	100	62	71.3	16	18.4	7	8.0	2	2.3
Clerical,	119	100	106	89.1	6	5.0	3	2.5	4	3.4
Domestic,	474	100	262	55.3	99	20.9	95	20.0	18	3.8
Professional,	32	100	24	75.0	6	18.8	2	6.2	–	–
Not reported,	2	–	2	–	–	–	–	–	–	–

[1] The marital condition of 6 engaged in manufacturing was not reported; they are included in the totals though not given a separate place in the table.

was explained to the woman so that she could fill in a similar blank for the five days remaining in the week. Over half (51.6 per cent.) completed the menu for five or more days, and more than three-fourths (78.5 per cent.) of this number finished the week, making in all reports of 1,703 meals.

Difficulties peculiar to this subject arose from the necessity of explaining the reasons for the inquiries concerning the food to ignorant and suspicious women, persuading them to keep their menus for a week, and from the personal nature of the questions which had to be asked often in the presence of persons of varying ages and both sexes. The inability to write English prevented the completion of the food schedules in some instances.

Characteristics of the Patients Studied.

The group selected for further study resembled the wage-earning women in the total dispensary group in age, occupation and nationality. These 126 patients were largely young women, native born or Russian Jewesses, engaged in manufacturing pursuits. The average age, twenty-two years (21.9), represented the trend for the group, since four-fifths (79.4 per cent.) were under twenty-five years of age (Table 58). One-half (50.8 per cent.) were native born. One-tenth (10.3 per cent.) of the total number were native born of native parents; one-third (33.3 per cent.), native born of foreign parents; and one-fifteenth (7.2 per cent.), native born of mixed parentage. More than one-fifth (21 per cent.) of the foreign born had been in this country two years or less, and one-half (56.5 per cent.) for five years or less. Although the majority were in the semi-skilled manufacturing occupations, the clerical, selling and telephone operating positions of one-fourth (29.4 per cent.) demand skill and a higher degree of intelligence. Their weekly wages ranged from $3 to $14.50, with an average for the group of less than $8 ($7.77) (Table 59). Telephone operating had the highest average wage, almost $10 ($9.97), clerical work slightly over $9 ($9.10), selling and manufacturing occupations between $7 and $8 ($7.50 and $7.43), and the miscellaneous personal service occupations less than $6.50 ($6.30). It is quite apparent that the majority of these women could make no provision from their earnings for private medical care. While their homes were located in all parts of Boston, living conditions did not vary greatly. Seven-eighths (87.3 per cent.) lived as part of their own families, 91 with

TABLE 57. — *Female Dispensary Patients in Gainful Occupations classified by Dispensary Departments and by Occupations. Data from Four Dispensaries.*

DEPARTMENTS.	TOTAL.		MANUFACTURING.		TELEPHONE OPERATING.		SELLING.		CLERICAL.		DOMESTIC.		PROFESSIONAL.		NOT REPORTED.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
All the departments,	1,238	100.0	504	100.0	20	100	87	100.0	119	100.0	474	100.0	32	100.0	2	100
Medical,	454	36.7	180	35.9	5	25	31	35.6	44	37.0	183	38.7	10	31.3	1	50
Surgical,	207	16.8	74	14.7	3	15	16	18.4	17	14.3	90	19.0	7	21.9	–	–
Nose and throat,	140	11.3	70	13.9	3	15	12	13.8	23	19.3	29	6.1	3	9.4	–	–
Eye,	126	10.1	59	11.7	4	20	11	12.6	8	6.7	44	9.3	–	–	–	–
Skin,	79	6.4	39	7.8	2	10	5	5.7	11	9.3	19	4.0	3	9.4	–	–
Gynecological,	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Genito-urinary,	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Syphilis,	75	6.1	29	5.8	–	–	4	4.6	4	3.4	37	7.8	1	3.1	–	–
Orthopedic,	74	6.0	17	3.4	–	–	6	6.9	1	.8	47	9.9	3	9.4	–	–
Ear,	33	2.7	14	2.8	2	10	1	1.2	7	5.9	7	1.5	1	3.1	1	50
Dental,	28	2.3	13	2.5	–	–	1	1.2	3	2.5	10	2.1	1	3.1	–	–
Nerve,	14	1.1	7	1.3	1	5	–	–	–	–	4	8.9	2	6.2	–	–
Miscellaneous,[1]	6	.5	1	.2	–	–	–	–	1	.8	3	.7	1	3.1	–	–
Not reported,	2	–	1	–	–	–	–	–	–	–	1	–	–	–	–	–

[1] Rectal, vaccine, therapy, 2 cases from each; obstetrical, X-ray, 1 case from each.

TABLE 58. — *Distribution by Age and Nativity of One Hundred and Twenty-six Dispensary Patients.*

BIRTHPLACE.	TOTAL.		NUMBER OF PATIENTS —				
	Number.	Per Cent.	16 Years and under 21.	21 Years and under 25.	25 Years and under 30.	30 Years and under 35.	35 Years and under 40.
Total,	126	100.0	52	48	16	7	3
United States,	64	50.8	28	20	11	4	1
Russia,	49	38.9	21	22	4	2	–
Canada,	5	3.9	–	3	–	–	2
Ireland,	2	1.6	1	–	1	–	–
Italy,	2	1.6	2	–	–	–	–
Other foreign countries,[1]	4	3.2	–	3	–	1	–

[1] One each from Austria, Azores, Barbadoes, Portugal.

TABLE 59. — *Distribution by Occupation and Wage of One Hundred and Twenty-six Dispensary Patients.*

WEEKLY WAGES.	Total.	Manufacturing.	Clerical.	Selling.	Telephone Operating.	Miscellaneous.
Total,	126	86	16	14	7	3
Less than $5,	3	1	–	2	–	–
$5 and less than $6,	16	14	–	1	–	1
$6 and less than $7,	27	23	2	1	–	1
$7 and less than $8,	19	17	–	1	–	1
$8 and less than $9,	19	9	5	4	1	–
$9 and less than $10,	11	5	2	2	2	–
$10 and less than $12,	18	10	4	–	4	–
$12 and less than $14,	6	3	2	1	–	–
$14 and more,	2	2	–	–	–	–
Not reported,	5	2	1	2	–	–

their fathers or mothers or both, 16 with other relatives, and 3 were married and living in homes of their own. The 16 living with strangers formed part of the family group in most instances.

These women were suffering from a variety of diseases of which constipation was the most prevalent (Table 60). Nearly two-fifths

(38.1 per cent.) were suffering from constipation, 17 (17.4) per cent. from a run-down condition, 16 (15.9) per cent. from debility, 15 (15.1) per cent. from digestive disorders and 13 (13.5) per cent. from anæmia. The appearance of these women was so influenced by racial characteristics that it was difficult for the casual observer to discern the effect of the different disorders. Recent arrivals from Russia remarked on their loss of weight, poor color and trouble with their teeth since leaving the old country. Of all the immigrants the Russians, who formed the greatest proportion of the foreign-born women studied, seemed least able to adapt themselves physically to the changed conditions.

TABLE 60. — *Occupations and Dispensary Diagnoses of One Hundred and Twenty-six Patients.*

DIAGNOSES.	TOTAL.		NUMBER OF PATIENTS IN —				
	Number.	Per Cent.	Manufacturing.	Clerical.	Selling.	Telephone Operating.	Miscellaneous.[1]
Total,	126	100.0	86	16	14	7	3
Constipation,	48	38.1	34	6	6	2	–
Run-down condition,	22	17.4	15	3	4	–	–
Debility,	20	15.9	10	4	4	1	1
Digestive disorders,	19	15.1	16	1	–	2	–
Anæmia,	17	13.5	11	2	–	2	2

FOOD EATEN IN ONE WEEK.

For the purposes of this study the 1,703 meals were reduced for each person to the food eaten in one week.[2] The unit of measurement was the number of times any article of food occurs during this week, making the total variety the sum of the different articles of food. Since the use of tea and coffee was subject to extreme variations, these beverages were excluded from the total variety of food. Percentages were used to indicate the proportion any food forms of the total variety. The classification of food was a convenient one suggested by Dr. C. F. Langworthy.[3]

[1] Theatre usher, hairdresser, salad maker.
[2] See Appendix C for method of tabulation.
[3] See Appendix C for discussion of the limitations of this plan of classification.

TABLE 61. — *Frequency of Use in One Week of Certain Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients.*

NUMBER OF ARTICLES OF FOOD EATEN IN ONE WEEK.	Number of Persons.	AVERAGE NUMBER OF TIMES A WEEK CERTAIN FOODS WERE EATEN.													
		TOTAL.		FOODS CHARACTERIZED BY —						SOUP.		COCOA, MILK.		PICKLES.	
				PROTEIN.		CARBOHYDRATES.		MINERAL SUBSTANCES.							
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total,	126	60.7	100	15.1	24.8	23.0	38.1	12.7	21.0	3.8	6.2	5.9	9.6	.2	.3
Less than 50,	21	42.3	100	9.4	22.3	18.0	42.3	6.3	15.1	3.2	7.6	5.2	12.2	.2	.5
50 and less than 60,	38	54.4	100	14.2	26.2	20.9	38.4	9.9	18.1	3.9	7.2	5.3	9.7	.2	.4
60 and less than 70,	36	63.6	100	16.0	25.0	24.2	38.3	13.9	21.8	3.7	5.8	5.7	9.0	.1	.1
70 and less than 80,	19	72.0	100	18.7	26.1	28.0	38.8	16.3	22.6	4.1	5.7	4.8	6.7	.1	.1
80 and more,	12	85.8	100	18.7	21.8	27.4	31.9	24.6	28.6	4.0	4.7	10.6	12.4	.5	.6

TABLE 62. — *Frequency of Use in One Week of Protein Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients.*

NUMBER OF ARTICLES OF FOOD EATEN IN ONE WEEK.	Number of Persons.	AVERAGE NUMBER OF TIMES A WEEK FOODS CHARACTERIZED BY PROTEIN WERE EATEN.															
		TOTAL.		BEEF.	PORK.	MUTTON.	CHICKEN.	OTHER MEAT.	ALL MEAT.		FISH.		EGGS.		CHEESE.		BEANS.	
		Number.	Per Cent.	Number.	Number.	Number.	Number.	Number.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total,	126	15.1	24.8	3.8	1.5	.5	1.0	1.4	8.2	13.5	2.3	3.8	3.1	5.1	.5	.8	1.0	1.6
Less than 50,	21	9.4	22.3	2.4	.5	.3	1.1	.4	4.6	11.0	2.1	5.1	1.5	3.6	.4	.9	.7	1.7
50 and less than 60,	38	14.2	26.2	3.9	.9	.3	.8	1.7	7.6	14.0	2.5	4.6	2.6	4.9	.7	1.3	.8	1.4
60 and less than 70,	36	16.0	25.0	4.3	1.9	.5	1.2	1.8	9.7	15.2	1.9	3.0	3.0	4.7	.3	.4	1.1	1.7
70 and less than 80,	19	18.7	26.1	4.4	2.1	1.0	.8	1.1	9.4	13.1	3.0	4.2	5.1	7.1	.4	.6	.8	1.1
80 and more,	12	18.7	21.8	3.8	2.8	1.0	1.0	1.5	10.1	11.8	1.7	2.0	4.4	5.1	.6	.7	1.9	2.2

Taking the average for all schedules, the total variety of food for a week was 61 (60.7) items, as shown in Table 61, classified as foods characterized by proteins, carbohydrates and minerals, and a miscellaneous group consisting of soups, milk or cocoa and pickles. Meats, fish, eggs and all other protein foods constituted one-fourth (24.8 per cent.) of this variety. The median variety was 15 times a week; in other words, there were as many women having a greater variety of proteins than this as there were having a smaller. The usual frequency was twice a day. The average distribution of the items composing this group (Table 62) indicated meat 8 (8.2) times, fish twice (2.3), eggs 3 times (3.1), beans once (1), and cheese less than once (.5) a week. In the case of meat the predominant number of times a week was 7, or once a day. Since meat was the one item in very general use, and since eggs, fish, cheese and beans are often used interchangeably, it was not to be expected that all of the schedules would include all of these items. More than one-third (34.9 per cent.) of the menus for a week were without eggs, two-fifths (38.9 per cent.) without fish, two-thirds (64.3 per cent.) without beans, and three-fourths (77.8 per cent.) without cheese.

Breads, cereals and all other foods characterized by carbohydrates formed two-fifths (38.1 per cent.) of the variety for the week (Table 63). While the average for the week was 23 times, or slightly more than once a meal, there was a tendency to have one of these foods at every meal. Of those who departed from this rule there were as many who served more than one article of carbohydrate food at a meal as there were who served less. The most important article of food in this group, bread, was used an average of 17 (16.7) times a week. The other articles showed smaller averages. Three-fifths (57.9 per cent.) of the group used no cereals, six-sevenths (84.9 per cent.) no macaroni, three-sevenths (42.9 per cent.) no cake, two-thirds (69.8 per cent.) no desserts, and the same proportion (68.3 per cent.) no pastry.

Vegetables and fruits formed one-fifth (21 per cent.) of the average weekly variety (Table 64). They were eaten less than twice a day (12.7 times a week). The composition of this group in the various food schedules was influenced by individual preferences. Potatoes were eaten by four-fifths (81 per cent.), fruit by five-sevenths (71.4 per cent.), other vegetables by five-ninths (56.3 per cent.), and salads by less than one-twelfth (7.9 per cent.) of the women reporting.

TABLE 63. — *Frequency of Use in One Week of Carbohydrate Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients.*

NUMBER OF ARTICLES OF FOOD EATEN IN ONE WEEK.	Number of Persons.	AVERAGE NUMBER OF TIMES A WEEK FOODS CHARACTERIZED BY CARBOHYDRATES WERE EATEN.													
		TOTAL.		BREAD.		CEREALS.		MACARONI.		CAKE.		DESSERT.		PASTRY.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total,	126	23.0	38.1	16.8	27.6	1.7	2.9	.3	.5	2.5	4.2	.9	1.5	.8	1.4
Less than 50,	21	18.0	42.3	14.1	33.4	1.5	3.5	.3	.6	1.2	2.8	.5	1.2	.4	.8
50 and less than 60,	38	20.9	38.4	16.5	30.3	1.5	2.7	.2	.5	1.7	3.1	.5	.9	.5	.9
60 and less than 70,	36	24.2	38.3	17.3	27.3	1.7	2.7	.4	.6	3.2	5.1	.6	1.1	1.0	1.5
70 and less than 80,	19	28.0	38.8	18.8	26.0	2.3	3.2	.4	.6	3.4	4.7	1.6	2.2	1.5	2.1
80 and more,	12	27.4	31.9	17.1	19.9	2.5	2.9	.2	.2	4.0	4.7	2.3	2.7	1.3	1.5

Potatoes were used an average of 5 (4.7) times, other vegetables 3 (2.6) times, fresh fruit 4 (4.2) times, and stewed fruit once (1.1) a week.

Foods characterized by protein, carbohydrates and minerals formed five-sixths (83.9 per cent.) of the total number of items eaten in a week. Soups, milk, cocoa and pickles formed the remaining sixth (16.1 per cent.) (Table 61). Pickles were an item of little importance, since less than one-tenth (9.5 per cent.) of the women used them. Soup was served at 4 (3.8) meals, and milk and cocoa at 6 (5.9) meals during a week. The somewhat extensive use of cocoa and milk is to be attributed, no doubt, to advice received at the dispensaries. The 67 women who used cocoa drank it about once a day (6.4 times a week), and the 58 women who used milk drank it about 5 (5.3) times a week.

Although this analysis shows a considerable variety for the average, there was a decided monotony in the diet of the individual women, since bread, meat and potatoes were the only items occurring in practically every menu. Some women, on the other hand, had a considerably greater variety than the average. The fluctuations show no connection with the nationality or type of disease, as the average variety for the three nationality groups (Table 65) differed by less than 3 items, and the groups with the varied disorders had practically the same average variety of food. In a general way an increased range of food seemed to accompany an upward trend in wages. Since these women live as part of a family group the relationship was not always consistent. A decided increase appeared in the number of times in a week items of food were chosen by women whose work required more training and intelligence. Less than one-sixth (15.6 per cent.) of the women in the semi-skilled occupations, with an average weekly wage of $7.39, had more than 70 items of food in a week, while almost one-half (45.9 per cent.) of the women in the more skilled positions, with an average weekly wage of $8.71, had this variety. Perhaps the better occupations of the women were due to higher family standards, and these standards also determined the wider range of food.

Some analysis of the character of this greater variety may prove interesting. Did the increasing number of items take the form of a repetition of staple articles or the addition of what might be called luxuries? The menus were composed largely of the staple foods; the

TABLE 64. — *Frequency of Use in One Week of Foods containing Minerals, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients.*

NUMBER OF ARTICLES OF FOOD EATEN IN ONE WEEK.	Number of Persons.	AVERAGE NUMBER OF TIMES A WEEK FOODS CHARACTERIZED BY MINERAL SUBSTANCES WERE EATEN.											
		TOTAL.		POTATOES.		OTHER VEGETABLES.		SALADS.		FRESH FRUIT.		STEWED FRUIT.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total,	126	12.7	21.0	4.7	7.7	2.6	4.3	.1	.2	4.2	6.9	1.1	1.9
Less than 50,	21	6.3	15.0	2.8	6.6	.6	1.4	–	–	2.4	5.8	.5	1.2
50 and less than 60,	38	9.9	18.1	3.7	6.8	1.6	2.9	.1	.2	3.8	7.0	.7	1.2
60 and less than 70,	36	13.9	21.8	4.6	7.2	3.4	5.3	.1	.2	4.6	7.3	1.2	1.8
70 and less than 80,	19	16.3	22.6	7.0	9.7	3.7	5.1	.3	.4	3.1	4.3	2.2	3.1
80 and more,	12	24.6	28.6	7.8	9.1	5.5	6.4	.3	.3	9.1	10.6	1.9	2.2

TABLE 65. — *Frequency of Use in One Week of Certain Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients, by Nativity of Parents.*

NATIVITY OF PARENTS.	Number of Persons.	AVERAGE NUMBER OF TIMES A WEEK CERTAIN FOODS WERE EATEN.													
		TOTAL.		FOODS CHARACTERIZED BY —						SOUP.		COCOA, MILK.		PICKLES.	
				PROTEIN.		CARBOHYDRATES.		MINERAL SUBSTANCES.							
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total, ...	126	60.7	100	15.1	24.8	23.0	38.1	12.7	21.0	3.8	6.2	5.9	9.6	.2	.3
English-speaking countries.	50	62.3	100	15.0	23.8	26.9	43.3	15.0	24.1	1.6	2.7	3.7	6.0	.1	.1
Non-English speaking countries (excluding Russia).	16	62.2	100	15.6	25.1	22.8	36.6	14.5	23.3	3.6	5.7	5.6	9.1	.1	.2
Russia, ...	60	58.8	100	15.0	25.5	19.9	33.8	10.4	17.7	5.6	9.5	7.6	13.0	.3	.5

so-called extras, such as desserts, cakes, pastry and salads, formed but one-twentieth (4.9 per cent.) of the total variety when less than 60 items were consumed in the week. (Tables 63 and 64.) The protein, mineral and carbohydrate groups were used a greater number of times in the increasing ranges until the average variety became 72 items. At this point the appetite for protein and carbohydrate food seemed to be satisfied. The use of vegetables other than potatoes, fresh fruit, milk and cocoa more than doubled when the total variety increased from an average of 72 to 86 (85.8) items for a week.

The marked differences in the diets of the three nationality groups, designated for convenience as the English speaking, non-English speaking and Russian, as shown in Table 65, were the greater use of breads, cereals, cakes, desserts and pastry in the English speaking, the lack of vegetables in the Russian, and the extensive use of soup, milk and cocoa by the non-English speaking and Russian groups. Although the Russians used fresh fruit oftener than either of the other groups this did not compensate for the lack of vegetables. There was a striking similarity in the number of times protein foods were used in the three groups (Table 66), but the distribution of the items within the group differed. The average Russian diet included meat once a day (7 times a week), fish every other day (3.7 times a week), eggs three (3.1) times a week. The English and non-English groups used meat 9 (9.3) times, fish once (1), eggs three (3.1) times and beans once (1.2 and 1.9) a week. Cheese formed a small portion of any diet. Beef and chicken were practically the only meats used by the Russian Jews, while the other nationalities showed a fair proportion of all meats, with beef predominating. The English-speaking group consumed more cereals, cakes, desserts and pastry. Sweets of any kind were practically lacking in the Russian diet. Cereals, a cheap form of carbohydrate food containing the valuable vitamines, were little used by any group. Perhaps the unwise clinging to Old World standards under New World industrial conditions occasioned the disorders of nutrition from which so many of the Russian Jewesses were suffering. Fats were lacking in the Russian diet. Adherence to the Jewish religion prevented the use of butter when meat was served, and prohibited the use of such fatty meats as bacon and salt pork. The high protein diet of the Russians, well adapted to outdoor work, was not modified by the increased

TABLE 66. — *Frequency of Use in One Week of Protein Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients, by Nativity of Parents.*

NATIVITY OF PARENTS.	Number of Persons.	AVERAGE NUMBER OF TIMES A WEEK FOODS CHARACTERIZED BY PROTEIN WERE EATEN.															
		TOTAL.		BEEF.	PORK.	MUTTON.	CHICKEN.	OTHER MEAT.	ALL MEAT.		FISH.		EGGS.		CHEESE.		BEANS.	
		Number.	Per Cent.	Number.	Number.	Number.	Number.	Number.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total, ...	126	15.1	24.8	3.8	1.5	.5	1.0	1.4	8.2	13.5	2.3	3.8	3.1	5.1	.5	.8	1.0	1.6
English-speaking countries.	50	15.0	23.8	3.9	2.7	1.2	.3	1.2	9.3	14.8	1.0	1.6	3.1	4.9	.4	.6	1.2	1.9
Non-English speaking countries (excluding Russia).	16	15.6	25.1	3.6	3.1	.2	.5	1.9	9.3	14.9	1.0	1.7	3.1	5.0	.3	.5	1.9	3.0
Russia, ...	60	15.0	25.5	3.8	.1	.1	1.7	1.3	7.0	11.9	3.7	6.2	3.1	5.4	.6	1.0	.6	1.0

TABLE 67. — *Frequency of Use in One Week of Carbohydrate Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients, by Nativity of Parents.*

NATIVITY OF PARENTS.	Number of Persons.	AVERAGE NUMBER OF TIMES A WEEK FOODS CHARACTERIZED BY CARBOHYDRATES WERE EATEN.													
		TOTAL.		BREAD.		CEREALS.		MACARONI.		CAKE.		DESSERT.		PASTRY.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total, ...	126	23.0	38.1	16.8	27.6	1.7	2.9	.3	.5	2.5	4.2	.9	1.5	.8	1.4
English-speaking countries.	50	26.9	43.3	17.2	27.6	2.3	3.8	.4	.6	4.4	7.1	1.1	1.7	1.5	2.5
Non-English speaking countries (excluding Russia).	16	22.8	36.6	15.3	24.6	1.2	1.9	1.1	1.8	3.4	5.4	.7	1.2	1.1	1.7
Russia, ...	60	19.9	33.8	16.8	28.5	1.4	2.4	.1	.1	.7	1.2	.7	1.3	.2	.3

consumption of bread or cereals and vegetables. The effect of this lack of vegetables is so evident in the case of the Russians that it is a common saying at dispensaries that it would be safe to prescribe Russian oil for every patient of that nationality. Constipation is so generally recognized to be the cause of other disorders that the results of its prevalence among such a large group of women workers are very far-reaching.

Since more than three-fifths (63.3 per cent.) of the Russians studied had constipation, the similarity between the diet of the women suffering from constipation and the Russian diet was to be expected (Tables 65 and 69). In comparison with that of the women suffering from other diseases, the diet of the constipation cases consisted of a higher proportion of protein foods, a much larger proportion of liquid foods, soup, milk, cocoa, and a smaller proportion of vegetables, all of which were directly conducive to constipation. It was often ignorance that led to an aggravation of this trouble, because as soon as the symptoms appeared some of the Russian women began consuming boiled milk and soups and omitting solid food in the hope of regaining their normal health.

The small use of water, as estimated by the women interviewed, perhaps explains this prevalence of constipation among some of them. The usual number of glasses of water a day, from 1 to 2 for the constipation group, was hardly enough to cleanse their systems, and from 2 to 3 glasses for the women with other disorders was slightly better. Tea, coffee, milk, cocoa were substituted for water to an equal extent in each group. A general feeling existed that it was a hardship to drink water except in the summer. One reason given was that cold water hurt the teeth, which was pertinent, since almost half (48.7 per cent.) of the women complained of the poor condition of their teeth. A second reason for not drinking more water was found in the statement of several women that the drinking of water between meals necessitated leaving their work at intervals during the day, and piece workers in particular did not wish to lose the time.

These causes of the prevalence of constipation were substantiated by the findings of Dr. J. W. Schereschewsky in a study of the health of garment workers in New York City. More than one-fourth (26.8 per cent.) of the 1,000 women examined were suffering from chronic constipation. More than one-fifth (22.6 per cent.) had de-

TABLE 68. — *Frequency of Use in One Week of Foods containing Minerals, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients, by Nativities of Parents.*

NATIVITY OF PARENTS.	Number of Persons.	AVERAGE NUMBER OF TIMES A WEEK FOODS CHARACTERIZED BY MINERAL SUBSTANCES WERE EATEN.											
		TOTAL.		POTATOES.		OTHER VEGETABLES.		SALADS.		FRESH FRUIT.		STEWED FRUIT.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total, ...	126	12.7	21.0	4.7	7.7	2.6	4.3	.1	.2	4.2	6.9	1.1	1.9
English-speaking countries, .	50	15.0	24.1	6.4	10.2	4.2	6.8	.1	.2	2.9	4.7	1.4	2.2
Non-English speaking countries (excluding Russia).	16	14.5	23.3	4.5	7.2	3.9	6.3	.4	.7	4.6	7.4	1.1	1.7
Russia, ...	60	10.4	17.7	3.3	5.6	.9	1.6	.1	.1	5.2	8.8	.9	1.6

TABLE 69. — *Frequency of Use in One Week of Certain Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients suffering from Constipation and Other Disorders.*

DIAGNOSES.	Number of Persons.	AVERAGE NUMBER OF TIMES A WEEK CERTAIN FOODS WERE EATEN.													
		TOTAL.		FOODS CHARACTERIZED BY —						SOUP.		COCOA, MILK.		PICKLES.	
				PROTEIN.		CARBOHYDRATES.		MINERAL SUBSTANCES.							
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total, ...	126	60.7	100	15.1	24.8	23.0	38.1	12.7	21.0	3.8	6.2	5.9	9.6	.2	.3
Constipation, . .	48	60.0	100	15.3	22.3	21.7	31.8	11.4	16.7	4.5	6.6	6.7	9.8	.4	.6
Other diagnoses, . .	78	61.1	100	14.9	20.7	23.9	33.1	13.6	18.9	3.3	4.6	5.3	7.4	.1	.1

fective teeth.[1] The causes for this large proportion suffering from constipation were summarized as follows:[2]—

> In addition to purely occupational conditions, such as defective posture and the sitting position which favor habitual constipation, it would seem that certain dietetic factors in the case of garment workers predispose to this condition.
>
> The use of green vegetables and fresh fruit among garment workers was small, and milk was very generally drunk, especially at lunch time. Perhaps, however, the most important personal factor in inducing this condition was the very general neglect on the part of garment workers of forming regular habits of defecation. Leaving their homes for their work hurriedly in the morning, the visit to the toilet is put off for some more convenient time, and is too often forgotten in the stress of work at the shop.

The data collected for the study seemed to disprove the common assumption that women suffering from unwise selections of food are excessive users of tea and coffee. Since over half (50.8 per cent.) of the women omit coffee and one-fourth (23 per cent.) tea, the average for those drinking these beverages is once a day (6.7 times a week) for coffee and 8 (8.4) times a week for tea.

With a few exceptions the excessive use of candy very evidently has little connection with the ill health of these women, since less than one-eighth (12.5 per cent.) reported regular consumption of this confection.

The use of the average in this food discussion resulted in the shortcomings of one menu correcting to a certain extent the shortcomings of others. This average shows the family standard of living of a low wage, predominantly immigrant group. The monotonous diet of bread, meat and potatoes, prepared with little knowledge of skillful cookery, characterized in general the choice of food of this group. There were, however, striking variations among the menus submitted, as are shown in the accompanying samples.

A twenty-year-old telephone operator, native born of Irish parents, suffering from stomach trouble, reported Menu I., and a twenty-two-year-old Russian Jewess who had been in this country for eight years, a bowmaker in a candy factory, with the prevalent disorder, constipation, reported Menu II. The total varieties differ by but one item, and approximate the average variety for the group. The

[1] United States Public Health Service, Bulletin No. 71, May, 1915, Studies in Vocational Diseases, I., The Health of Garment Workers, by J. W. Schereschewsky, p. 55.

[2] *Ibid*, p. 64.

TABLE 70. — *Frequency of Use in One Week of Protein Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients suffering from Constipation and Other Disorders.*

DIAGNOSES.	Number of Persons.	AVERAGE NUMBER OF TIMES A WEEK FOODS CHARACTERIZED BY PROTEIN WERE EATEN.															
		TOTAL.		BEEF.	PORK.	MUTTON.	CHICKEN.	OTHER MEAT.	ALL MEAT.		FISH.		EGGS.		CHEESE.		BEANS.	
		Number.	Per Cent.	Number.	Number.	Number.	Number.	Number.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total, ...	126	15.1	24.8	3.8	1.5	.5	1.0	1.4	8.2	13.5	2.3	3.8	3.1	5.1	.5	.8	1.0	1.6
Constipation, . .	48	15.3	22.3	3.8	.7	.4	1.5	1.3	7.7	11.3	2.9	4.3	3.4	5.0	.5	.6	.8	1.1
Other diagnoses, . .	78	14.9	20.7	3.9	2.0	.6	.6	1.4	8.5	11.8	1.9	2.6	2.9	4.1	.5	.7	1.1	1.5

TABLE 71. — *Frequency of Use in One Week of Carbohydrate Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients suffering from Constipation and Other Disorders.*

DIAGNOSES.	Number of Persons.	AVERAGE NUMBER OF TIMES A WEEK FOODS CHARACTERIZED BY CARBOHYDRATES WERE EATEN.													
		TOTAL.		BREAD.		CEREALS.		MACARONI.		CAKE.		DESSERT.		PASTRY.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total, ...	126	23.0	38.1	16.8	27.6	1.7	2.9	.3	.5	2.5	4.2	.9	1.5	.8	1.4
Constipation, . .	48	21.7	31.8	17.8	25.9	1.4	2.1	.2	.3	1.1	1.7	.8	1.2	.4	.6
Other diagnoses, . .	78	23.9	33.1	16.2	22.4	1.9	2.7	.4	.6	3.4	4.7	.9	1.2	1.1	1.5

TABLE 72. — *Frequency of Use in One Week of Foods containing Minerals, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients suffering from Constipation and Other Disorders.*

DIAGNOSES.	Number of Persons.	AVERAGE NUMBER OF TIMES A WEEK FOODS CHARACTERIZED BY MINERAL SUBSTANCES WERE EATEN.											
		TOTAL.		POTATOES.		OTHER VEGETABLES.		SALADS.		FRESH FRUIT.		STEWED FRUIT.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total, ...	126	12.7	21.0	4.7	7.7	2.6	4.3	.1	.2	4.2	6.9	1.1	1.9
Constipation, ...	48	11.4	16.7	3.8	5.6	1.5	2.2	.1	.1	4.7	6.9	1.3	1.9
Other diagnoses, ...	78	13.6	18.9	5.2	7.2	3.3	4.6	.2	.2	3.9	5.4	1.0	1.5

monotony of diet, absence of sweets, mineral foods and the abundance of liquid foods, as indicated by the average for the Russian group, were repeated in Menu II. Seven kinds of protein food — eggs, fish, beef, pork, lamb, chicken and beans — were eaten 18 times in all; cake, desserts and pastry 12 times; potatoes 10 times; other vegetables twice; soup twice; and milk once a week in Menu I., while 3 protein foods — chicken, eggs and liver — were eaten 15 times; no sweets or desserts; potatoes once; soup 8 times; and cocoa and milk 16 times a week in Menu II. The use of butter was not consistently mentioned in either of the menus, but it is fair to assume that it was used more frequently in Menu I. than in Menu II., where it had to be omitted at 7 meals, every time meat was used.

Menu I.

	Breakfast.	Lunch.	Supper.
Monday, ...	Coffee. Oatmeal. Ham omelet. Toast.	Escalloped potatoes. Chicken sandwich. Bread pudding. Milk. Custard pie.	Lamb chop. Baked potato. Toast. Tea. Hot biscuit.
Tuesday, ...	Boiled eggs. Tea. Toast.	Ham. Potatoes. Turnips.	Cold ham. Cake. Bread and butter. Tea.
Wednesday, . . .	Farina. Toast. Tea.	Stewed tomatoes. Rolls. Coffee jelly. Tea.	Beefsteak. Baked potatoes. Tea. Cake.
Thursday, . . .	2 eggs. Muffins. Tea.	Curried lamb. Boiled potato. Rice pudding.	Veal cutlets. Baked potato. Tea. Hot muffins.
Friday, ...	3 fish cakes. Coffee. Toast.	Fish chowder. Tea. Pie.	Baked stuffed haddock. Boiled potato. Tea. Cake.
Saturday, . . .	2 lamb chops. Bread. Tea.	Beans. Rolls. Prune jelly. Tea. Muffins.	Ham. Boiled potato. Tea. Cake.
Sunday, ...	Beefsteak. Toast. Coffee.	Beefsteak. French fried potatoes. Coffee. Pie.	Chicken soup. Roast pork. Mashed potato. Whipped cream pie. Tea.

Menu II.

	Breakfast.	Lunch.	Supper.
Monday, ...	Egg. Milk. Oatmeal.	Bread and butter. Milk.	Chicken. Soup. Bread.
Tuesday, ...	2 eggs. Milk. Bread.	Bread and butter. Milk.	Chicken. Soup. Bread.
Wednesday, ...	Malted milk. 2 boiled eggs. Bread and butter.	Bread and butter. Milk.	Milk. Soup. Chicken. Bread.
Thursday, ...	Malted milk. 2 boiled eggs. Bread and butter.	Bread and butter. Milk.	Potatoes. Cream. Bread and butter. Milk.
Friday, ...	2 boiled eggs. Bread and butter. Milk.	Chicken. Soup. Bread.	Chicken. Soup. Crackers.
Saturday, ...	1 egg. Milk. Crackers.	Chicken. Soup. Bread.	Cream. Bread and butter. Tea.
Sunday, ...	Bread and butter. Potatoes. Cocoa.	Chopped liver. Chicken. Soup. Bread.	2 boiled eggs. Bread and butter. Milk.

Service of Food.

It is generally admitted that the preparation and service of food are quite as important as the quality and selection of the food itself in aiding its digestion. The meals of these working women were hastily served, with slight formality and interspersed with little conversation. The usual time consumed in eating the meals, estimated in all cases by the women themselves, was from ten to twenty minutes for breakfast and from fifteen to thirty minutes each for lunch and supper. There are various reasons why the meal periods were so curtailed. In general, the breakfast period was more hurried for the 70 (69.8) per cent. of the women who had to be at work before 8 o'clock than for those reporting at work later. When the lunch period was lengthened to forty-five minutes or an hour the women ate in a more leisurely fashion. The desire to have longer evenings for the movies, night school at 7.15 o'clock, and the meal habits of the families all tended to shorten the supper period.

The collection of the schedules at supper time revealed the manner of serving that meal. It was the common procedure for each person to get his or her food, which the mother served from the stove, and

to sit down to eat at the partially set table, regardless of any other members of the family.

Conditions were not more conducive to pleasant, social noon meals for two-thirds (66.7 per cent.) of the women who ate their lunches at work. One-fourth (26.2 per cent.) of the women went home because of a preference for a hot, though hurried, meal. Only 9 of the 126 women regularly bought their lunches. Eating was evidently a disagreeable duty, to be performed as quickly as possible, with no pleasurable anticipation or real relaxation from the strain of work.

Certain irregularities in the distribution of the meals in the day had a bad effect upon the health of a few women. Three-fourths (75.4 per cent.) had a normal distribution of from ten to twelve hours between breakfast and supper, with the lunch period making a fairly even break. Five women having irregular meals, and 4 machine operators and 1 candy dipper, who worked from eight to nine and one-half hours a day, regularly omitted breakfast because they had no appetite so early in the morning. They did not realize the possible connection between their persistent tired feeling and this postponement of the first meal until noon. Irregular meal periods, caused by intermittent changes of working hours or widely separated daily shifts of work, were reported as the cause of their lack of appetite and poor health by 3 women. Working hours extending until 10, 11 and 12 o'clock at night, necessitating meals at extremely irregular hours, were alleged to be the cause of ill health by 3 other workers.

Economic Status.

The quality of the food depends on the intelligence as well as the income of the family, and these together indicate the standard of living. The economic status of the families as shown by the number of persons, including the wage earners themselves, sharing the income of each wage earner, is given in Table 73. Only members of the family gainfully employed were included as wage earners. The average number of persons for each wage earner was about 2 (1.98) for the total group, slightly less (1.93 to 1.94) for the English-speaking and Russian groups, and higher (2.09) for the non-English speaking group. The number dependent upon each wage earner in the families ranged from 1 to 5 persons. The families consisted of from 2 to 12 persons, the most common number being 6. When only a few shared the income of one wage earner the family was usually mature,

and the financial strain was lessened accordingly. If the wages of the women themselves were indicative of the standards of their families, the status of the non-English and Russian groups was lower than that of the English-speaking group, since the average wage for the women in each group was $7.39, $7.62 and $8.07, respectively. It was customary for the children to enter industry at an early age. More than one-half (54.8 per cent.) of the workers interviewed had begun to work before they were sixteen, and seven-eighths (86.5 per cent.) before they were eighteen, years of age. In the 110 families where the women formed part of their own family groups, one-third (34.3 per cent.) of the wage earners were the women themselves; 20

TABLE 73. — *Economic Status of the Families of One Hundred and Twenty-six Dispensary Patients.*

NATIVITY OF PARENTS.	Total.	Women adrift.	FAMILIES IN WHICH THE AVERAGE NUMBER OF PERSONS DEPENDENT UPON EACH WAGE EARNER WAS —				
			1 and less than 2.	2 and less than 3.	3 and less than 4.	4 and less than 5.	5 and less than 6.
Total, ...	126	16	52	32	16	8	2
English-speaking countries, .	50	4	19	19	4	3	1
Non-English speaking countries (excluding Russia).	16	2	7	3	3	1	–
Russia, ...	60	10	26	10	9	4	1

(19.6) per cent., their sisters; 19 (18.7) per cent., their brothers; 17 (17.1) per cent., their fathers; 2 (2.2) per cent., their mothers; and 8 (8.1) per cent., other relatives. Sixty-eight fathers were living; of these, 55 were working, 15 were in business or professional, though not high-paid, positions, such as Jewish teachers, storekeepers and charcoal salesmen, and 40 were in manual occupations. Seven mothers worked, — 3 day workers, 2 midwives, 1 machine operator and 1 boarding-house keeper. In the effort to supplement the family income 9 families kept 1 lodger and 1 family kept 2 lodgers. No effort was made to ascertain family incomes, but the general status of the family in respect to the number of wage earners, the occupations of the parents, coupled with the fact that the average weekly earnings of the women interviewed were less than $8 ($7.77), indicated that the family incomes were small.

Living Conditions.

The living conditions probably had a definite influence upon the health of these women. All but 11 lived in tenements,[1] but under very diverse conditions; some had 2 rooms for each person; in others, the average was 3 persons for each room. One-sixth (16.7 per cent.) lived in overcrowded homes, or those where there were more than 1.5 persons for each room.[2] This crowded condition was more evident among the non-English and Russian people than among the English-speaking group. Thirty per cent. of the homes had no bathtubs.

In connection with housing conditions in general, sleeping arrangements are important in preserving health. Only 13 of the 126 women reported sleeping with the windows shut, but it was reasonable to assume from the general conditions of the homes that the ventilation was inadequate in numerous other cases. Only 2 women slept in an alcove where the ventilation was dependent on the windows in other rooms. More than one-third (34.1 per cent.) roomed alone, one-half (52.4 per cent.) shared a room with 1 other, and one-eighth (13.5 per cent.) with 2 others. An unexpectedly large proportion (40.5 per cent.) had no bedfellows, over half (56.3 per cent.) but 1, and only 3 (3.2) per cent., 2 bedfellows. While the hours of sleep varied from seven to eleven, almost half (49.2 per cent.) had from eight to nine hours, which is commonly supposed to be sufficient; one-fifth (22.6 per cent.) had less and one-fourth (28.2 per cent.) more than this usual amount. A number of the women (29.6 per cent.) complained of sleeping poorly, no doubt because of their physical condition.

The condition of the teeth explained the prevalence of liquid food, and the poor mastication and digestion of solid foods. Almost half (48.7 per cent.) reported that they needed dental work; the majority of these had postponed this treatment for financial reasons. Three-fourths (77.2 per cent.) cleaned their teeth once a day, but 7 (7.3) per cent. failed to maintain this minimum standard.

The lack of even the usual standard of cleanliness accounted for the prevalence of petty disorders. More than one-fifth (22.6 per cent.) of the workers interviewed had less than one bath a week,

[1] As defined in Acts and Resolves of Massachusetts, 1913, chapter 786, Part I.

[2] Chapin, Robert Coit: The Standard of Living among Workingmen's Families in New York City, 1909, pp. 80, 81.

almost half (47.8 per cent.) but one a week, and only one-fourth (29.6 per cent.) more than one a week. The absence of adequate facilities partially explained this seeming aversion to bathing, although some Russian immigrants, in particular, were afraid of taking cold by bathing in the winter.

Relation of Industry to Health.

The effect of industrial overstrain upon the health of the women workers would lead to disorders of nutrition, since digestion is one of the first bodily functions to suffer in exhaustion.[1] The occupations of the women studied, classified by the types of work and the weekly hours of work, are shown in Table 74. Half (50.8 per cent.) of the total group interviewed worked from fifty to fifty-five hours a week, the legal limit being fifty-four hours, one-third (32.5 per cent.) from forty-five to fifty hours, and the remainder less than forty-five hours. The strain in manufacturing pursuits caused by piecework, machine operating, noise, speed and monotony was further increased by long hours, since three-fifths (61.6 per cent.) of the women employed in manufacturing worked the legal limit or a few hours less, and almost one-third (31.4 per cent.) worked from forty-five to fifty hours a week. The strain caused by the complexity and speed in the telephone service was relieved, to some extent, by the shorter hours, since forty-eight hours in any week was the longest period worked by the telephone operators included in this study. The majority of the women in clerical and selling positions worked less than fifty hours a week. These occupations at times necessitated working under a nervous strain, and saleswomen stood the greater part of the day. Machine operating employed one-fifth (22.2 per cent.) of the 126 workers, and half of the machine operators (53.6 per cent.) were piece workers, thus combining the nervous tension caused by running the high-speed power machines with that brought on by piecework. The majority of those doing hand work in manufacturing pursuits (33.3 per cent. of the total group) were time workers. Only 14 of the 126 women reported overtime.

The weekly hours of work indicated time actually spent in the factory, store or office, as the case might be, but gave no idea of the time that must be devoted to work, which would include that spent

[1] Goldmark, Josephine: Fatigue and Efficiency, 1912, Vol. I., pp. 283, 284.

in coming to and returning from work and the lunch period. Using the entire working time as a basis, almost half (46 per cent.) of the women interviewed had to devote from ten to eleven hours each day to work, one-fourth (28.6 per cent.) from nine to ten, one-sixth (15.1 per cent.) from eleven to twelve, and most of the others less than nine hours.

These hours were not so long on Saturdays in the case of 69 women who stopped work at 12 or 1 o'clock, and 2 women who took all day Saturday for rest. In the summer months 3 other women had a half

TABLE 74. — *Weekly Hours of Work in Different Occupations reported by One Hundred and Twenty-six Dispensary Patients.*

OCCUPATIONS.	TOTAL.		WOMEN WORKING SPECIFIED NUMBER OF HOURS.				
	Number.	Per Cent.	Less than 40 Hours.	40 Hours and less than 45.	45 Hours and less than 50.	50 Hours and less than 55.	Irregular.
Total,	126	100.0	6	10	41	64	5
All manufacturing,	86	68.2	1	3	27	53	2
Clothing: —							
Machine operators,	20	15.9	–	–	4	16	–
Hand workers,	17	13.5	1	–	3	11	2
Other manufacturing: —							
Machine operators,	8	6.3	–	–	4	4	–
Hand workers,	25	19.8	–	2	12	11	–
Packers, examiners, errand girls,	13	10.3	–	–	3	10	–
Forewomen,	3	2.4	–	1	1	1	–
Clerical,	16	12.7	2	4	4	5	1
Selling,	14	11.1	2	–	6	5	1
Telephone operating,	7	5.6	–	3	3	–	–
Miscellaneous occupations,	3	2.4	–	–	1	1	1

holiday and 6 others the whole day. Since half (50.4 per cent.) of the workers walked to and from their work, about three-sevenths (42.3 per cent.) rode, and the others (7.3 per cent.) walked one way, part of this time consumed in walking to and from work might be called exercise.

The nervous strain of shifting from one position to another is quite as exhaustive as work itself. Almost one-third (31.2 per cent.), or 39 women, of the dispensary group and been in their positions less than one year. The majority (30) of these had had one other place,

while a few (5) had held from 2 to 4 other positions. The larger proportion of the women interviewed, however, were not part of the shifting industrial population, since almost three-fifths (56 per cent.) had held the same position for from one to five years, and one-eighth (12.8 per cent.) from six to twelve years. This did not necessarily mean regular employment throughout the year, since the larger proportion (68.2 per cent.) of the women were in manufacturing occupations, and therefore subjected to seasonal employment with its attendant irregular pay.

Uses of Leisure Time.

The leisure times were obviously the hours left after the sleeping hours and time devoted to work were deducted. The daily hours of leisure ranged from two and one-half to eight, but two-fifths (39.7

Table 75. — *Uses made of Leisure Time by One Hundred and Twenty-six Dispensary Patients.*

Daily Hours of Leisure.	All Women.[1]	Women reporting Uses of Leisure as —						
		Total.	Recreation.	Exercise.	Education.	Work.	Rest.	Not reporting.
Total,	126	346	69	67	24	146	28	12
Less than 4 hours,	9	20	2	2	–	10	5	1
4 hours and less than 5,	26	75	10	18	5	37	5	–
5 hours and less than 6,	50	130	25	24	11	53	9	8
6 hours and less than 7,	25	78	25	15	5	27	5	1
7 hours and more,	9	22	4	5	1	9	3	–
Irregular,	7	21	3	3	2	10	1	2

[1] Number of women irrespective of number of uses of leisure time reported.

per cent.) of the workers had from five to six hours a day. These periods, however, included the time spent rising, retiring and eating breakfast and supper. The various uses of this free time, as reported by the workers, are shown in Table 75. It is obvious that this leisure time probably is used for more than one purpose by each woman. The various occupations of this time were given by the women interviewed as the things they usually did in one week. Housework, laundry and sewing, classed as work, were most frequently reported;

movies, clubs, visits to friends and other forms of recreation were next; and walking, third. Twenty-eight of the women were too tired after working hours to do anything but rest. While every woman reported at least one kind of work, only a little over one-half reported some form of recreation.

The general low standards of living, the strain of industry, the short leisure periods were evidently partial causes in undermining the health of the 126 dispensary patients interviewed. Probably all these conditions were aggravated by an unwise selection of food, especially by a monotonous diet, limited use of vegetables and fats, particularly in the case of the Russian Jewesses. Since this study was necessarily concerned with the group as a whole, equal weight was given to all probable causes of ill health. For practical application the importance given to each element conducive to ill health in the individual cases would receive different weights, and the results compared with the average for the group; for instance, food might be the most important cause in one case and working conditions in another.

CHAPTER VI.

COMPARATIVE SUMMARIES AND CONSTRUCTIVE SUGGESTIONS.

Nutrition investigations are attaining an important place in the public health service because of the growing recognition of the part they play in preventive medicine. Recent studies have shown the direct connection between faulty diets and such maladies as pellagra and beriberi, and reasons have been found for believing that wrong quantities or unsuitable forms of food are to blame for many other morbid conditions of the body. A complete revolution is taking place in the methods of preventing the spread of infectious diseases, since it is now realized that it is impossible to extend the older activities of quarantine and disinfection so that the public will be safeguarded from the spread of disease by persons who may carry germs to others without suffering seriously from their presence. Increased attention must be given to fortifying each individual so that he will carry his defences with him. Whether this immunity is won through the activities of the scavenger cells of the body, by the secretion of antiseptic fluids, or by the creation of anti-bodies, it is in every case promoted by a well-nourished, vigorously functioning physical condition, and so is directly dependent on an adequate supply of properly selected food.

National vitality is regarded as the most valuable of the country's resources, and as the one most in need of careful conservation. Its direct dependence on the health of the mothers of future generations has led all civilized countries to enact laws for the safeguarding of working women, but these laws can establish only minimum conditions of protection, as otherwise they would defeat their purpose by taking from women the opportunity to compete with men in efforts to earn a livelihood. The same ends which have been promoted by protective legislation also may be gained by teaching women how to nourish and exercise their bodies, and how to direct their activities so that what strength they possess may be applied most effectively. Indeed, the objects sought in labor legislation never can be attained fully until the activities of factory inspectors

are supplemented by constructive work on the part of public health officers.

Such constructive work in the field of dietetics should begin with efforts to promote the better nourishment of the women under twenty-one years of age, because a greater proportion of the female population of this age group is at work, and because these younger women need more food than mature women. One-half of the younger women of Boston are at work,[1] and the records of the school placement bureau show that about a third of these women under twenty-one became wage earners when fourteen to sixteen years of age. Their health gains peculiar social significance when we realize that the half of the female population who have the experiences of wage earners marry in a larger proportion, at an earlier age, and produce more children than the half who enjoy a longer period of training and protection.

The younger women need more food in order to supply the double demands of growth and maintenance. They are in the period of transition from childhood to womanhood, during which the bony and muscular structure is completed, and the organs and glands of the reproductive system are matured and started upon a type of functioning which often brings greatly increased nutritional demands. Tissue building is expensive, and a rich and abundant diet is required if there is to be the necessary surplus after energy has been supplied for the day's work. Greater physical exertion is required in the occupations of the younger than in those of the adult women, as the majority of the former are factory workers or unskilled assistants in mercantile establishments, while a large proportion of the latter hold sedentary clerical and professional positions.

These younger working women usually live with their own or an adoptive family group; only 6 of the 261 women found living away from their families were under twenty years of age.[2] Three-fourths of the housekeepers of these family groups were born in foreign lands,[3] and many of them are unable to speak the language used in the markets where they spend limited family incomes on unaccustomed viands. Wholesome ways of living which have survived through generations of life on a peasant farm of Europe may be ill adapted to conditions found in the tenements of an American city. No doubt all the members of the family suffer because of these dif-

[1] Table 1, p. 14. [2] Table 29, p. 70. [3] Table 3, p. 16.

ficulties of readjustment, but the results are apt to be most disastrous for those who need the richer diet required to supply both growth and bodily maintenance.

Domestic science teachers should be sent into the homes of immigrant families to assist housekeepers in the selection and preparation of well-balanced and economical family bills of fare. The California Immigration Commission has promoted such a plan, and secured the adoption of a law making possible the employment of such teachers throughout the State. They may be paid from public school funds, since their services are regarded as a part of the public educational work. Similar instruction is being given in eastern cities by settlement and relief workers.[1] In the absence of these direct efforts to modify family standards of living we must depend on thorough instruction in the public schools, combined with systematic efforts to encourage the children to apply their knowledge in the home. Difficulties and delays seem inseparable from the efforts to modify family dietaries. Prompter relief may be given the young working women by assistance in procuring an inexpensive and nourishing noon luncheon.

The results of the present study indicate that the facilities for obtaining an adequate noon luncheon are apt to be in an inverse ratio to the need for nourishment. The women having the longest work day, the lowest wage, the most physical strain and the greatest nutritional needs had the shortest lunch period and the least assistance in obtaining a satisfying meal. Thus we find that a third of the power-machine operators and active semi-skilled workers of the factory district had a thirty-minute noon period, while three-fourths of the women doing lighter office work had the full hour for rest and refreshment.[2] The frequency of piecework and the half hour for lunch in the low wage group exceeded that of the higher wage group.[3] Eighty per cent. of the women engaged in manufacturing never bought a hot noon lunch, while only 20 per cent. of the women employed in stores were unable to enjoy the greater comfort of a cafeteria service, and but 40 per cent. of the women doing the lighter office work ate cold lunches.[4] The younger women, whose nutritional needs

[1] Gibbs, Winifred Stuart: The Minimum Cost of Living. This book gives a summary of the results of such work for families assisted by the New York Association for Improving the Condition of the Poor.

[2] Table 11, p. 30.

[3] Table 8, p. 26.

[4] Table 6, p. 21.

are greater than those of mature women, were found largely in the poorly paid, short noon hour groups.

The more general adoption of the full hour noon period would be a simple and inexpensive first step towards improved conditions. No argument is needed to prove that uncomfortable results often must follow the hasty swallowing of a cold lunch during a short interval between the periods of high tension characteristic of factory piecework. The focusing of attention on eating, particularly when accompanied by pleasurable anticipations, is a means of promoting the flow of digestive juices. The longer noon period makes possible some simple efforts at serving the lunch more attractively, encourages less hasty eating, and invites restful social intercourse or some form of diverting mental or physical activity.

The economic value of a good noon meal is clearly shown by an analysis of the consequences of the failure to provide opportunities for an agreeable and wholesome luncheon service. A young woman who has been cramped over a power machine all the morning, with her eyes strained[1] by watching the needles and her entire strength focused on the effort to finish as many pieces as possible, pushes aside her work and opens the package of lunch which was hastily packed before leaving home. The food has been exposed to germ-laden air, and may have been carelessly handled during preparation. It has been kept in the warm workroom during the morning, and when opened gives forth a stale odor. Eating is an unpleasant duty quickly discharged, — often without leaving the machine or work table. The cells and glands which secrete the digestive fluids have not received the blood supply which makes possible vigorous work, and so cannot surround this cold, soggy mass promptly with the strong fluids which might kill the germs and convert the food into substances needed for renewing bodily energy. The colonies of germs thrive in the moist heat of the stomach, and the gases and poisons from the decaying food help produce the irritable disposition and chronic tired feeling which make a discontented and inefficient employee.

The minimum provisions for the noon meal which might well be required in all places of employment are facilities for washing the hands, a clean place in which to eat and some means of heating food or beverages. Since two-thirds of the women of this study

[1] Eye strain is a common cause of indigestion.

who were engaged in manufacturing ate their noon meals at power machines or on their work tables, it is evident that many Boston employers are not giving even this slight attention to the health and comfort of their employees.[1] A separate lunch or rest room is desirable both because it gives a change during the noon period and because there is less danger of the food being soiled by the injurious dusts that are found in many factories.[2] When this cannot be provided, portable or folding tables may be used, or work tables may be cleared and supplied with clean covering. A roll or large sheets of wrapping paper could be provided, or paper napkins and tablecloths, which cost little and add to the attractiveness of the lunch. Facilities for preparing and serving hot beverages are indispensable in the many factories where over 80 per cent. of the employees eat cold food brought from home.

Employers who feel that they cannot afford any of the more generous welfare activities which are now being so widely adopted may improve on these minimum provisions by encouraging various forms of co-operation found in the smaller Boston establishments. A messenger may be sent to neighboring cafeterias or delicatessen stores to bring in food ordered by groups of workers,[3] or a woman employee of domestic tastes may be given time in which to prepare food for her companions. The plan of employing a motherly housewife to come in for a few hours in the middle of the day to assist in keeping the lunch room clean and attractive and in the preparation of a few simple dishes works well and requires but a small expenditure.[4]

A lunch club might be organized which could co-operate with the employer in plans for purchasing supplies at wholesale rates, thus making possible greater variety with little expense. The monotonous consumption of tea could be broken up by the occasional substitution of chocolate, cocoa or canned soup. Oranges, apples, prunes, raisins and dates — foods needed to counteract maladies common among factory women — could be bought in unbroken packages and the employees given the benefit of the reduced rates.

The factory, as well as the school, lunch service may in time be recognized as an important public duty. In Boston, as in many other cities, the latter has been so regarded, and has been conducted without profits by organizations interested in social betterment

[1] Table 7, p. 22. [2] Page 23. [3] Page 37. [4] Page 59.

activities. As already suggested, the need is greater and the public welfare is as much involved in the case of the young factory worker as in that of the student. In the course of this investigation employers of the smaller factories maintaining no cafeterias were asked whether they would welcome a plan whereby food would be sent in from a central kitchen to be sold at cost, as is done in the secondary schools. Many employers showed a willingness to furnish space, equipment for serving and heating food, and other incidentals if by doing so they could obtain good food for their employees at cost prices. The history of school feeding shows that, after its value has been proved and the methods of management standardized, there is a tendency to transfer it to public control. In time all industrial communities may accept the obligation to maintain a central kitchen from which food can be distributed for sale at cost both to school children and factory workers.

That a fully equipped employees' lunch room is gaining recognition as a necessary addition to the larger factories and department stores is evident from the results of the investigation in Boston and the reports received from other sections of the country. The person in charge should combine business ability and a knowledge of cookery and dietetics. Particular attention should be given to the advantages of co-operation with a committee of representative employees who can help adapt the food served to the tastes and purses of their companions.[1] There is a sound physiological basis for reluctance to make changes in food habits, as the body is adjusted to accustomed diets, and digestion is promoted by the greater satisfaction which they give.

Dietary deficiencies revealed by investigations of individual and family menus might be remedied to some extent in the bills of fare in employees' lunch rooms. Constipation is a common ailment among many classes of workers. The use of whole-grain breads and of fresh vegetables and fruits would assist in overcoming this tendency. Useful foods not commonly served in Boston wage earners' homes are winter vegetables, such as cabbage, celery, cauliflower, carrots, onions and turnips; dried fruits, such as raisins, dates, prunes and apricots; cheese, both separately and with macaroni; peanut butter, rice and various corn products. The use of wholesome but unaccustomed foods should be encouraged by definite dietary instruction.

[1] Page 59.

Short talks on personal hygiene given during the noon hour have brought good results in some Boston establishments, and should become a more common practice. If a reading room is maintained it would be well to supply a few good books on dietetics, to which reference could be made in these talks. No doubt many wage earners would gladly avail themselves of such opportunities, as employees are reflecting the personal efficiency ideals of their employers, and often are eager to learn how to get the best possible results from the running of their bodily machinery.

The Food of Women living away from their Families.

The lone woman of our great cities presents a new phase of social evolution. Until quite recently she was found most frequently in the United States, but the reports of industrial conditions in Great Britain during war times show that, under stress of economic necessity, women are being separated from their families and shifted from place to place in order to supply the demands for their services.[1] These emergency conditions may become permanent, since the death of large numbers of men will deprive many women of present and future family relationships. If the war continues the unhappy experiences of Europe may be repeated in the United States. The independence of American women and social conditions which insure them an exceptional degree of safety may result in an increasing tendency to sever family ties in order to seek the opportunities for employment which promise the best wages and which meet personal preferences.

Large numbers of virtuous women from whom the mothers of future generations may be drawn have never before been found living independently outside of family groups. The change means not merely the forfeiting of the protection of the family and the loss of an economical manner of living, but also withdrawal from the most inexpensive form of social insurance. In the past the risks of sickness, of irregular employment and of old-age helplessness usually have been shared by members of the family group. Radical social readjustments are necessary in order to provide adequate substitutes for what is lost when wage-earning women are deprived of these advantages. An exceptionally high proportion of women, who

[1] Monthly Review of the United States Bureau of Labor Statistics, May, 1917, pp. 661–664.

for many years have been trying to find ways of solving these problems,[1] makes Boston a good place in which to attempt a critical study of the efforts to deal with conditions which mark the break-up of an old and the beginning of a new social and economic order.

That no generally satisfactory plan of living for unattached women has been developed seems evident from an examination of the schedules collected in the course of this investigation. The various plans reported may be grouped roughly under three types: —

1. The lone-woman type, in which each person lives alone and obtains her food at a restaurant or boarding house, or prepares and serves it in her room or small apartment.

2. Co-operative housekeeping initiated and managed by the small group who live together on a family basis.

3. Communal schemes whereby the necessities of life are provided for large groups of women who live in organized houses which have been established and are partly or entirely controlled by persons who do not belong to the class of wage earners for whom the accommodations are designed.

The Lone-woman Plan of Living.

Nearly 60 per cent. of the 261 individual schedules showed eating habits which a man would sum up in the phrase, "My home is where I hang my hat." It is difficult to classify the varying combinations of light housekeeping, boarding house and restaurant,[2] and the grouping would be still more intricate if the shifting between restaurants were indicated. The growing patronage of restaurants was the most striking tendency noticed in their confused and intricate living plans. It seems probable that the drift from the old-fashioned boarding house to the restaurant indicates that the latter gives more satisfactory service, as the women included in the investigation were familiar with the city, and their thrift in other matters suggests that they must have made a careful study of how to get the largest possible returns for their money. The detailed reports of the places where noon luncheons were purchased show that nearly 70 per cent. of the women were in the habit of eating at places which were organized so that wholesale buying of supplies and minimum service charges made it possible to give patrons good food at a low price.[3]

[1] Table 1, p. 14; Table 26, p. 66. [2] Table 37, p. 83. [3] Table 18, p. 43; pp. 44–45.

Of the 700 women interviewed in the noon luncheon study only 24 went home for the midday meal.[1] Yet many of the women must have felt the need of substantial food, as the hurried departure in the morning often must have prevented the eating of a satisfying breakfast. Those who could afford to buy hot food might easily acquire the restaurant habit as a result of their experiences with the noon meal. Even the women in the small-wage groups would find it practicable to buy a noon meal which would include meat and hot vegetables, and to prepare in their rooms the lighter foods eaten in the morning and evening. Since inexpensive boarding houses are rarely found within walking distance of the places where the women are employed, and since pleasanter and less expensive rooms can be rented in suburban localities, such plans would be adopted by an increasing number of women.

A careful study of the Gephart and Lusk report on the nutritional values of ready-to-serve foods would be helpful to these women. Thirty-three varieties of food were found which were sold at prices permitting the purchase of a day's ration supplying 2,500 calories for 50 cents.[2] Thirty-two additional dishes were added to the list when the living allowance was increased to between 51 and 60 cents. At these prices three-fourths of the women living away from home could have obtained adequate restaurant food for the sums which they expended. That good use would be made of a knowledge of the food values of restaurant dishes is indicated by the extreme care with which these women expended their limited incomes. The "food spree" was the exception, and self-restrained confinement to 15-cent lunches or 25-cent dinners the rule.

Inability to select a cheap and adequate menu, or unwillingness to confine themselves to the inexpensive dishes, prevented the general adoption of the minimum-cost (restaurant) bill of fare. Only 4 women who reported their food for an entire week, and who spent less than $4, purchased all their meals at restaurants or cafeterias. The usual plan was to buy one or two meals a day, and to supplement them with food prepared in the room. Forty per cent. did some cooking in their rooms, over 20 per cent. prepared a large portion of their food there, and about 9 per cent. depended entirely on such light housekeeping.[3] Two-thirds of the women for whom

[1] Table 7, p. 22.
[2] Gephart and Lusk: Analysis and Costs of Ready-to-Serve Foods, pp. 22, 23.
[3] Table 37, p. 83.

schedules were collected did the whole or a part of their laundering in their rooms or apartments.[1] The opposition of the landlady to such domestic pursuits is well known, so it seems probable that if permitted to do so a higher proportion of the women would indulge their housekeeping instincts.

Cheapness and the possibility of accurate adjustment to personal needs and tastes account for the increasing popularity of this method of procuring food. All waste can be eliminated, as the woman provides only such viands as she feels disposed to eat, and the remnants from one meal can be saved for another. The proverbial fondness for home cooking can be gratified, and the subtler dietary adjustments which play an important part in promoting physical well-being can be made. The economic waste due to buying in small quantities is a much smaller factor in determining the final cost than the expenditures for services of preparation and the rent, light and heat of places where restaurant food is served.

Three objections are urged to obtaining food by light housekeeping in bedrooms: (1) it is pointed out that the fatigue of the day's work should not be increased by the labor of preparing food; (2) from remote antiquity the taking of food has been regarded as a social function, and many women find eating alone very depressing; (3) uncouth living conditions may bring a loss of dainty habits and self-respect. These objections gain greater weight from the fact that such living arrangements are not temporary, but often are important influences throughout the adult life of the large group of women by whom these solitary ways of living are being adopted.

Failure to recognize this element of permanence in their living problems is one of the reasons for the lack of efforts to establish good standards for these women who can no longer make use of the traditional methods of obtaining food and shelter. The assumption that their present manner of living is a makeshift, and that they soon will be supplied with husbands and homes, is not justified by the facts revealed in the course of this investigation, since the average number of years away from home was between nine and ten[2] and in many cases the efficiency and happiness of the entire adult life are dependent on the discovery of sound plans of living. The improvement of the social and economic conditions of working women is greatly impeded by this failure to realize that for the

[1] Page 81. [2] Page 71.

class, if not for the individual, the situation is permanent, and worthy of the best efforts to understand its conditions and formulate its standards. A frank facing of the possible dangers of a manner of living that is becoming increasingly common, and a consideration of ways for its improvement, will help working women decide whether light housekeeping is the best possible means of providing the whole or a part of their food.

Excessive fatigue is a source of indigestion. A careful estimate of physical resources should precede the adoption of a plan of living which makes additional demands on limited strength. Women who feel exhausted at the end of the day's labors should go home and lie down for half or three-quarters of an hour before eating the evening meal. Those engaged in sedentary occupations would be benefited by a brisk walk, or the gentle exercise of light housekeeping. School teachers who have an interval of rest in the afternoon can engage in domestic labors without injury.

Since emotional conditions have a decided influence on the secretion of digestive juices, the advisability of adopting this method of providing food depends also on whether the woman has a liking for and skill in the domestic arts. Indifference or irritation while preparing the food is apt to promote discomfort after it is eaten. On the other hand, when cooking is exercised as a fine art, the focusing of attention on what is expected to be an appetizing meal is a means of promoting a copious flow of digestive fluids. A domestic science teacher who carries heavy responsibilities, and who had recently changed from a boarding house to a small apartment, vowed that she thoroughly enjoyed cooking her evening meal, and found that it agreed with her better than did the boarding-house fare.

The emotional effect of solitary eating varies with the individual. Teachers or saleswomen who have labored with people all day often prefer a quiet meal with no conversational obligations. The social intercourse of the average boarding house is not particularly soothing or cheering, and certainly the publicity and noise of the public restaurant offer no attractions. There is a general unwillingness among these women to have roommates, so it is evident that they prefer the quiet and relaxation of freedom from companionship. It seems probable that solitary eating would not prove depressing if the food were properly prepared and daintily served.

This brings us to the third and chief objection to the light house-

keeping observed in the course of this investigation. It is impossible to say whether the uncouth habits[1] of living of some of these women should be charged to early lack of training or to inability to obtain adequate light housekeeping facilities. In this age of cheap domestic supplies a limited income is not sufficient excuse for conditions frequently observed by the investigators. The hurried gobbling of food from the frying pan or paper bag is in keeping with the customs of the tenements, where families rarely sit down together at a nicely served meal. We need a refocusing of education which shall result in a just recognition of the dignity and importance of the activities of daily life on which depend human happiness and efficiency. It is generally agreed that the vocational education for women must include training for both wage earning and homemaking. Since so high a proportion may spend their lives as wage earners, some instruction about methods of adjusting the homemaking activities to the needs of single women would not be out of place.

The difficulty of finding rooms suitable for light housekeeping at a rental which a working woman can pay discourages all ambition to make an attractive little home. Only the more successful can afford a kitchenette apartment. Resourceful women architects should try to solve the problems connected with building a house of one or two room apartments whose cost would be such that the rents could be moderate. A ventilated closet kitchen with a small gas stove and a sink suitable for washing dishes and clothes, a comfortable living room, a closet for clothing, possibly an ingenious plan for folding away the bed, and access to a bathroom are requisites for well-ordered living.

The Octavia Hill plan for the management of tenements might well be applied to such apartment houses. They should be in charge of a social worker who would be responsible for the maintenance of good standards. She could serve as a court of last appeal in the self-governing scheme of the tenants, could organize classes for instruction in hygienic living, and could make provision for various forms of co-operative buying which would reduce living expenses.

The high cost of city building sites, the excessive amount of plumbing in such a house, as well as the heavy expense of heating and upkeep, will make it impossible to supply such accommodations

[1] Pages 83, 84.

for a large portion of the 18,000 to 20,000 women in Boston who are living away from their families. The lower wage women can often rent rooms with many housekeeping privileges in suburban homes. A stenographer and proofreader, who is thirty-four years old and earns $20 a week, says, in reporting the results of her varied experiences: "I have been a participant in five different co-operative schemes and do not recommend them. The place for a girl who has come away from home is in another home. There are many women in the suburbs who are glad to rent rooms to just such a girl, and for but $2 or $3 a week will give her a 'homey' room, well cared for and heated, and with the privileges of doing some washing, ironing and cooking, using the sewing machine, piano, etc. Usually, these women have been working girls themselves and know just how to treat one. They are glad to earn a little extra money for themselves. How can a lodger be much trouble when she is away all day long and out a good deal in the evenings? An 'ad.' in the 'Transcript' beginning 'Wanted by a business woman' finds them. Many a nice little woman will write a timid answer to such an 'ad.' who would not dream of advertising rooms to let, and she does not 'say anything to her husband about it' until you have told her you would like to come, and is not sure 'what he *will* say.'" She pays $2 a week for a room in Brookline. Her breakfast is prepared in her room: a cold lunch is supplemented by tea or cocoa, made on a gas plate at her place of employment; and the evening meal is purchased at a restaurant. Her menus show an ample and well-balanced diet at a total cost for the week reported of $3.82.

Choice of Food.

Notwithstanding the varied plans for obtaining their meals, the women living away from home showed remarkably good judgment in the choice of food. Mrs. Ellen H. Richards began her pioneer work for the promotion of public instruction in dietetics over twenty-five years ago, and throughout this period Boston has profited by a great variety of educational activities in this field. In the absence of studies of dietaries in other sections of the country it is impossible to make comparisons, but the results of this investigation indicate that these educational efforts have brought some good returns. The menus show a healthful variety in the diet selected, but no instance

was discovered of the deliberate and intelligent effort to procure a properly balanced ration *at minimum cost.*

The reports of food eaten by women earning less than $6 per week may have shown this knowledge of what constituted a good diet rather than what the women were accustomed to buying, since the sum spent on food and lodging was 114 per cent. of the weekly income. There is the same tendency to an excessive use of bread which has been noticed in similar English studies, as it constitutes 33 per cent. of the total range of foods eaten, but the more nourishing milk and cocoa were used about once a day in place of tea and coffee. The dietaries reported by these poorly paid women were not defective: in one week they ate meat 7 to 8 times; eggs 3 to 4 times; beans, 1 to 2 times; vegetables, 9 to 10 times; and fruit, 3 times.[1] A larger use of cereals would improve the diet of these women. Since nearly all of them were doing light housekeeping it would have been possible to boil rice, oatmeal, corn meal and hominy or samp. Inexpensive home-made fireless cookers would make possible the thorough cooking required for such cereals, and when eaten with milk and sugar they supply much nourishment at small cost.

The 61 women earning $8 to $10 per week may be regarded as typical of the workers of ordinary or mediocre ability, while those scattered through the higher wage ranges probably were women of superior training or of greater natural ability and initiative. The most striking difference in the dietaries of these two groups is the excessively stimulating character of the food chosen by the less successful women. They used tea and coffee 16.3 times per week, or two to three times every day,[2] and also chose the more stimulating protein foods with equal frequency. The higher wage women used more fruits, vegetables and cereals, less bread and meat, and substituted soup, milk and cocoa for a part of the tea and coffee used by the lower wage groups. Thus the diet of the more successful women contained more minerals and less protein, and was not so constipating as the bread, tea and meat menus of those who earned less.

The excess of protein may have tended to lower the working capacity of the women. While some of them were engaged in the

[1] Tables 39–42.

[2] The 77 schedules used in calculating the menu and Table 5 of pages 18 and 19 show an exceptionally small use of tea and coffee. A number of these earlier schedules were furnished by Simmons College graduates who had learned good dietary habits.

more active occupations, all were past the age when there was a demand for the surplus of protein required for growth. It is well known that when more protein food is eaten than can be utilized there are uric acid by-products which must be eliminated, and which, when in excess, may cause a sense of fatigue. Constipation also produces depressing poisons which have far-reaching evil effects. The large use of tea and coffee may have promoted undue nervous irritability in many of the women.

Food was the most important and at the same time the most elastic item in the budgets of these self-supporting women. Since the majority of them lived in irregular ways, preparing some meals in their rooms and buying the others at cafeterias, restaurants or boarding houses, it was possible to adjust their bills of fare to varying conditions of the purse. Room rent must be a fairly stable factor, as an unprotected woman must provide herself with suitable shelter; but clothing and food, the two chief remaining items, can be varied to meet fluctuations in income or in accordance with preferences of the individual. A woman may be tempted to save on her food in order to purchase clothing which she desires, or may choose this means of reducing expenses. Studies of industries employing women indicate that practically all of them have periods of lessened pay or unemployment. The combination of anxiety about loss of work and a reduced diet must occur often, and must prove a great strain for many of these women. Provident loan societies should make special efforts to extend their benefits to women living away from home. The ability to procure a small loan at a reasonable rate would prevent the risks to health due to anxiety and inadequate food during times of industrial depression.

The majority of the women living away from home were spending more on their food than their incomes justified. Certainly it will be impossible for them to continue during the present national crisis such dietaries as they reported. The chief item on which a saving could be made is meat. Adult women whose occupations do not require severe physical exertion certainly can be well nourished if they have meat or fish once a day. When eggs, beans and milk are used it would be possible to dispense entirely with a meat dish. Experiments conducted during the months of this investigation showed that adult men could be fed at a cost of 25 to 30 cents a day, or for $1.75 to $2.10 a week. This sum covered only the cost of raw

materials, while the amount paid by the women usually was increased by the cost of preparing the food and the charges of restaurant or cafeteria service for at least one meal a day. Even after making such allowance it will be found that a satisfactory diet could have been procured for less than was paid. The schools retain a hold on Boston young people at least until they are sixteen years old. Instruction could be given which would assist these young women to select an adequate and well-balanced ration at minimum cost. This would make possible some saving from their meager earnings, and enable them to decrease their living expenses during periods of financial depression without injury to their health. Tables of dietary values, and problems requiring the selection of menus of varying prices, might well take a conspicuous place in the arithmetic exercises of continuous school classes of both boys and girls.

The expenditure for food by women living away from home is much larger than the per capita expenditures of the family budgets of wage earners. The group of 61 women earning $8 to $10 per week spent for food an average of $3.36[1] per week, or $174.72 per annum. Atwater estimates that a woman at moderately active work requires about 80 per cent. of what is used by a man, and 3 children may use as much as 2 women; then a family of 5, with the rate of expenditure of these single women earning $8 to $10, would require for food alone $787.56 per annum.

The standard minimum dietary, which has been tested through eight years of expert application in the families assisted by the New York Association for Improving the Condition of the Poor, supplies 3,000 calories at a cost of 34 cents (October, 1916) per unit per day, or 27 cents for the amount usually allowed an adult woman. This ration contains less meat, eggs, butter and fresh fruit, but more vegetables and milk, than were used by the single women of the Boston investigation.[2] Co-operative groups of wage-earning women could be taught to select and prepare minimum cost dietaries by means similar to those employed with these families.

[1] Table 31, p. 75.

[2] Gibbs, Winifred Stuart: The Minimum Cost of Living, p. 18.

Co-operative Housekeeping.

Housekeeping in co-operative groups which would reproduce the conditions of family life seems a natural and desirable manner of living for working women separated from their families. It would be inexpensive, would supply companionship, would require no more or even less work than the light housekeeping of a large proportion of the lone women, and would preserve the capacity for personal adjustment necessary for normal family life. Why is it that so few working women adopt this manner of living? Only 31 of the 261 women living away from home were members of small co-operative households, and most of these groups were fragmentary families rather than voluntary co-operators.[1] The latter were found in small numbers at the two extremes of the wage groups, — the women with good incomes sometimes sought the better accommodations or home atmosphere of a family, and those of the lowest wages were forced to resort to light housekeeping in rooms shared by other women of equally limited incomes. A typical example of the experiences of the high-wage, co-operative housekeeper is a young woman holding a civil service position paying $25 a week. She rented a small apartment for $5.50 per week, and paid an additional $2 for the woman who cleaned the apartment and washed. She reports: "When there are three of us in the apartment we each put $6 into the box on Monday morning. This pays our rent, our gas bill, our telephone ($3 a month) and our cleaning. It allows us to have all the company we want. When there are two of us we each put $8 in the box.

"I think the co-operative method of housekeeping is the best and most economical way for girls to live, but the outlay for furniture prohibits many from living this way, and a physically tiring job would make it unwise for a girl to attempt it. For stenographers and office workers this is the solution. For salesgirls some other way is better, I think.

"I have very rarely been alone at the apartment except for two months in the summer. Part of that time I lived alone and part of it I closed the apartment and lived with a friend of mine in Jamaica Plain. When I am there alone it costs about $11 a week, if I eat at home, which I rarely do when alone."

[1] Page 87.

The minimum expenditure was less than the sums covering the average cost of food and lodging of women earning $14 or over,[1] but the maximum expense could not have been met by a large majority of the women living away from home. Other co-operative housekeepers told of similar uncertainty. In one such enterprise joint signatures to the lease helped to enforce the complete responsibility of the more unstable members of the group. The uncertainty of the tenure of office of many women would make them hesitate before investing their meager savings in furnishings, and assuming the obligations of an annual lease. A knowledge of this uncertainty deters the women of more stable economic status from forming alliances which may leave them a double share of the expenses, or may even require that they assist the unfortunate members of their adopted family.

The difficulty of finding a group who are equally gifted in the domestic arts and disposed to share alike in the household labors is another obstacle to co-operative housekeeping. A strictly equitable division of responsibility is rarely found in natural families. Usually one abler, stronger or more unselfish member is elected by common consent to the honorable rôle of family burden bearer. There is greater reluctance to "bear the infirmities of the weak" when they have no claims of kinship, and the fairly well-founded fear that some members of the group will be shirkers is enough to prevent many from assuming the obligations of a joint establishment.

Personal peculiarities or distaste for the forming of new social ties were found to be the chief obstacles to co-operative housekeeping.[2] Some of the women interviewed were aware of their growing irritability and selfishness. A person of apparent congeniality may, on more intimate acquaintance, reveal habits which are extremely annoying, as in the case of a young woman of good education and refined manner who had contracted the habit of continuous whistling. Women away from home must be on their guard against undesirable associates, and caution often develops into chronic suspicion. Pride and limited incomes prevent the use of opportunities for forming social ties which might grow into permanent friendships. The investigators who interviewed the women living alone were strongly impressed with the dangers to personal character which may result

[1] Table 34, p. 78. [2] Page 87.

from the loss of family relations and failure to cultivate other social ties.

Newer types of educational work are likely to promote future attempts at co-operative housekeeping. Model cottages or apartments in which groups of girls keep house are being recognized as essential parts of the equipment for domestic science instruction. Progressive schools where newer ideas of social training have found a foothold are encouraging various forms of group activities which develop a capacity for co-operation. A systematic teaching of the minor courtesies which are sadly neglected in many American homes would be good preparation for co-operative living and for many other future social relations.

Churches might be able to assist groups of working women to establish co-operative homes. A committee of older women, one of whom could serve as a house mother or counselor, could be responsible for the general oversight of the enterprise. The counselor would require rare tact to enable her to be helpful without encroaching on the sense of responsibility which should belong to the co-operative group. The religious fellowship of the household might assist in promoting the unselfishness and forbearance necessary for community living. If the church assumed the expense of furnishing and risk due to the shifting of women when their work changes, it would be possible for women of limited incomes to avail themselves of the economies of such establishments. New members should be received at first as probationers, so that their congeniality could be tested before their acceptance as permanent additions to the co-operative family. Care should be exercised to prevent such groups assuming boarding-house proportions. A large church might maintain several establishments which could be varied in type to meet the economic needs of women of different standards of living.

The Food of Women living in Organized Houses.

The organized houses intended for working women showed the same lack of definite standards that was found in the living arrangements of the lone women.[1] Charges for room and board ranged from $3 to $10 per week and there was no general agreement about the ages or wages of persons who were received as guests. Some

[1] Table 48, pp. 110–112.

houses were heavily subsidized and claimed the exemption from taxation of charitable institutions, and some were self-supporting, yet there was no great difference between the two types of houses in the quantity or character of the food served. Variations in the cost of service were striking, since the number of guests per employee ranged from 3 to 12. The extremes are partially explained by assistance in the housework given by guests, and by the fact that employees in some cases had other duties than the care of boarders. The numbers accommodated ranged from 14 to 1,000, yet the large and small houses showed no consistent variations in the per capita cost of raw materials. None of the houses had installed a system of accounting which would promote a careful study of food costs.

The saving made possible by living in the organized houses was striking, as they offered food and lodging for less than could be obtained by any other plan. The average weekly expenditure for board and lodging of women living alone was $5.89, and the lowest wage groups spent over $4,[1] while two houses charged as low as $3, two $3 to $4, and ten had many guests who were paying $4.50 to $5. Women who cooked all their meals in their bedrooms or workrooms paid $2.65 for food alone.[2] The addition of rent even for a part of a room would bring the weekly cost of living above that of the less expensive houses. Low-wage women whose physical endurance is limited, or whose occupations make heavy demands on their strength, need the inexpensive board and freedom from household tasks which is made possible by the organized houses. Such assistance is of great value to young women struggling to get a foothold in industry and to women suffering from irregularity of employment. All of these women are in danger of injury to their health or loss of working power because of insufficient food.

Concerted efforts are necessary in order to make sure that the women most in need of such assistance shall receive the benefits of the organized houses. Only 1,660 of the 20,000 Boston working women living away from home can be accommodated in such houses. Since their initial cost is great, and since they usually require continuous financial assistance, it is not probable that they will be established in numbers sufficient to care for a large proportion of the homeless women. Long-continued residence in a subsidized house is socially and economically undesirable for a woman who has at-

[1] Table 34, p. 78. [2] Table 37, p. 83.

tained an earning capacity making possible self-support. The period of residence might be utilized to prepare the women to assume responsibility in self-supporting, co-operative schemes. The successful Eleanor Clubs of Chicago furnish a good model for women who have not time and inclination for housekeeping tasks. Smaller groups of women who have formed ties of friendship could be given the training which would prepare them for the activities of family-size, housekeeping units. Those who do not wish companionship could receive instruction and guidance in the choice of wholesome and economical plans of living suitable for lone women.

A central municipal or even national organization could do much to promote the development of a comprehensive policy. Such a bureau for the assistance of wage-earning women is being organized in Cleveland. Women seeking boarding places will be guided to the houses best suited to their needs, and information about available resources for education or recreation will be given. Its functions might be extended to include other activities which would result in better standards of institutional management for the organized boarding houses. The following are some of the problems which might be solved by some such pooling of experiences: —

The size of the group which can be cared for with the greatest economy and comfort.

The service required with different forms of organization in the dining room and kitchen.

Methods by which the important assistance rendered transients may be combined economically with the care of the permanent guests.

Classification of guests so that women with low wages may profit by the smaller charges of the most heavily subsidized houses.

The complete utilization of the accommodations of the houses by means of the prompt notification of vacancies and the sending of new guests from the central bureau.

Uniform systems of accounting, making possible the comparison of the costs of administering such houses and the determination of places where saving would be possible.

The dietaries of many of the Boston houses for working women are more costly than could be afforded in a wage earner's home. It seems suitable that such houses give a practical demonstration of a minimum-cost, yet adequate, dietary. The boarders should be taken

into confidence about the details of household management and financing, so that they will be under no false impressions about what it costs to live. It does not seem desirable that young working women lose touch entirely with the problems of family life. This must happen when they spend many years in the organized boarding houses.

Influence of Diet on the Health and Efficiency of the Working Women.

The present investigation produced no direct evidence indicating that the health or efficiency of Boston working women is suffering seriously because of insufficient or unwisely selected food. Twenty thousand records were examined in order to find the small group of dispensary patients studied. While the diet of some of them was deficient in fats, lacking in minerals, and of a somewhat constipating character, there were other unsanitary conditions or habits which may have contributed more to their ill health than the defective dietaries. A comparison of the weights at given heights of wage-earning women registered in the Young Women's Christian Association gymnasium classes during the past five years with those of the entering class at Wellesley College suggests that Boston working women may be exceptionally well nourished. The largest numbers in both groups were between 5 feet 1 inch and 5 feet 5 inches in height, as over 70 per cent. of the women were included between these limits. The wage earners found in these groups weighed more than the collegians, but no age records were available, and the differences may be due to the inclusion of a larger number of older women in the Young Women's Christian Association classes. Over 15 per cent. (15.6) of the Wellesley students and only 6 per cent. (6.3) of the Young Women's Christian Assocation women were much above the average in height and weight, hence the averages for the entire group give the college women a slight advantage.

But the adequacy of the diet should be judged by the energy furnished and the freedom from morbidity as well as by weight and height, and the crude methods of the present study permit no estimates of these subtler indications of physical well-being. Morbidity statistics of American wage-earning women are not available; the recent "Sickness Survey of Boston," based on the records of the

Metropolitan Life Insurance Company, does not separate the wage-earning women from the married homemakers. Forms of sickness showing a rate for females of over 50 per 100,000, named in the order of their importance, were rheumatism, "nervousness," cerebral hemorrhage, organic diseases of the heart, indigestion and other stomach troubles, and tuberculosis of the lungs. It is generally

TABLE 76. — *Distribution by Height and Weight of Wage-earning Women registered in the Young Women's Christian Association Gymnasium Classes and of Wellesley College Students.*[1]

YOUNG WOMEN'S CHRISTIAN ASSOCIATION.			WELLESLEY COLLEGE.		
Height in Feet and Inches.	Weight in Pounds.	Number of Women.	Height in Feet and Inches.	Weight in Pounds.	Number of Women.
5′ 2″[2]	119.4[2]	844[3]	5′ 3″[2]	120.9[2]	456[3]
4′ 8″	94.4	3	4′ 8″	–	–
4′ 9″	100.3	16	4′ 9″	102.7	4
4′ 10″	106.9	26	4′ 10″	94.8	5
4′ 11″	112.0	54	4′ 11″	105.6	12
5′	111.2	83	5′	109.5	30
5′ 1″	114.5	129	5′ 1″	113.7	60
5′ 2″	118.1	157	5′ 2″	115.2	77
5′ 3″	122.3	135	5′ 3″	118.8	81
5′ 4″	125.8	116	5′ 4″	121.4	71
5′ 5″	130.8	72	5′ 5″	130.2	45
5′ 6″	126.9	31	5′ 6″	139.4	40
5′ 7″	134.4	15	5′ 7″	134.8	18
5′ 8″	149.1	3	5′ 8″	139.9	9
5′ 9″	136.9	3	5′ 9″	165.2	2
5′ 10″	–	–	5′ 10″	150.0	2
5′ 11″	149.0	1	5′ 11″	–	–

[1] The Young Women's Christian Association records were for different women registered during a period of five years, while the Wellesley College data were those of the entering class of September, 1915. The table was prepared by Miss Louise Moore.

[2] Arithmetical averages of the groups. [3] Totals.

recognized that the diet of the patients plays an important part in causing or curing several of these maladies; but since the human body responds to morbid states in a unified way, it is impossible to recognize the extent to which defective nutrition prepares the way for many other forms of disease, or lessens the power to repair the injuries which they inflict.

The influence which diet may have on health and working power is so complex and far-reaching that no reliable conclusions can be based on morbidity or mortality statistics, or on the limited data now available. More intensive investigations are needed before answers can be suggested to the following questions which have arisen in the course of this investigation: —

Does the strain of early wage earning and insufficient nutrition prevent or retard the physical development of women?

What is the effect of physical strain and unsuitable or inadequate food on the development of the reproductive system?

Is the excessive infant mortality found in urban wage earners' families due in a measure to the failure of full physical development, or to the exhaustion of reserves of vitality of the mothers who worked during their adolescent years?

Reasoning from analogies among plants and animals can we conclude that the impulse to continue the race is prematurely aroused or given greater strength when the woman is insufficiently nourished? Is it possible that there is a connection between the physical strain to which young wage-earning women are subject and the breakdown in morals which frequently occurs when seventeen to eighteen years old?

Is the lack of initiative commonly charged to working women due in a measure to their low vitality and indirectly to defective nutrition?

What are the causes of the unnecessarily great differences in the physical development of men and women? Variations in the amounts of food consumed, the less active habits of women, clothing which checks the activities of the organs maintaining the vital forces, or inherited incapacity?

A large field for educational activities as well as for research has been opened up by the present investigation, as it has revealed the inability to deal intelligently with the fundamental problems of life, which may prove to be the chief source of national weakness in the great struggle upon which we are entering. Participation in the war of the nations has forced upon us a great campaign for education in dietetics. The efficient "stoking" of the human engine will occupy a more important place in the courses of study of the future. Women must be given the training which will enable them to deal intelligently and economically with the task of providing food for a family or for a lone-woman wage earner.

APPENDICES.

Appendix A.

FORMS OF INQUIRY USED IN THIS INVESTIGATION.

Form No. 1.

The Food of Working Women in Boston.

1. Where was your father born?
2. Where was your mother born?
3. Where do your mother and father live?
4. Where were you born?
5. When were you born? Year Month Day
6. In what town or city do you live?
7. On what street? Near what cross street?
8. How long have you lived away from your family?
9. What is the business of the firm for which you now work?
10. What work do you do for this firm?
11. If out of work at present, what was the business of the firm for which you last worked, and what work did you do for them?
12. How much did you earn last week, or the last week that you worked?
13. Were you paid by the week or by the piece?
14. What rent per week do you pay for your room?
15. Have you roommates? How many?
16. How do you get your clothes washed and ironed?
17. How much does your washing and ironing cost you per week?

	Food Eaten in One Week and what it Costs.						
	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Sunday.
18. What did you eat for breakfast?							
19. What did you eat for lunch?							
20. What did you eat for supper?							
21. Which of these meals did you eat outside your room?							
22. Where did you get these meals?							
23. How much did you pay for each?							
24. What did you buy to eat in your room, and what did each thing cost?							

25. What did you pay for oil, gas or other fuel used in cooking during the week?

26. What was the total amount which you spent for food during this week?

27. On what date was this record completed?

28. Remarks: Please write on the blank back of this page any suggestions about ways in which girls living as you do might be assisted. Perhaps you can tell of other plans by which such girls can live in an economical and yet healthful way. If you co-operate with others to reduce cost, tell how you do it and how much it saves you.

Note. — When this schedule is filled in, please return it to your club leader or other person from whom you received it, or mail it to the following address: Research Department, 264 Boylston Street, Boston, Massachusetts.

FORM NO. 2.

Noon Lunch in Factories and Stores.

1. Firm name 2. Address 3. Business

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4. Worker's birthplace 5. Birthplace of (*a*) Father (*b*) Mother
6. Living conditions 7. (*a*) Distance of home from work (*b*) Minutes: (1) Ride (2) Walk
8. Occupation 9. Time: (*a*) Sitting (*b*) Standing (*c*) Walking
10. Earnings per week: (*a*) Time (*b*) Piece 11. Noon period: from to

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12. Lunch brought: (*a*) No. of days (*b*) Where eaten
13. Heating appliances: (*a*) Available (*b*) Used for
14. Use of spare time
15. Packing of lunch: (*a*) By whom (*b*) How
16. Reasons for bringing
17. Lunch menus of to-day and yesterday

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18. Lunch bought: (*a*) No. of days (*b*) Where
19. Reasons for buying
20. Lunch menus of to-day and yesterday, cost of each

Remarks

Date

Investigator.

FORM NO. 3.

Employees' Lunch Rooms.

1. Is there a lunch room for women employees? Do men eat there also? Is there a separate one for men? A separate one for office women? Is a rest or recreation room combined with the lunch room? Hours during which women employees eat lunch? Is there a matron in charge of lunch room? What are her total hours on duty?

2. In the women employees' lunch room are lunches eaten at tables or at counters? Do the women wait on themselves? May employees use heating facilities of lunch room to cook for themselves? Are there heating facilities in another room which they may use? Check kind of facility supplied: Gas Electricity Coal range How many burners or places? Is there an oven? Are cooking dishes furnished by the firm or the employee?

3. How many lunch tables are there? Total seating capacity at tables? What are the sizes of the tables and how many of each size? When in use are they bare or covered? With paper? With oilcloth? With linen? Is linen white? Unbleached? Colored? How often laundered?

4. Are dishes furnished by the firm? Are they china? Enamel ware? Are knives, forks and spoons of silver plate? Are glasses furnished for beverages? Is there a coffee urn? A cocoa urn? A milk urn? An ice box or chest? A steam table?

5. Number of women employed by the firm? How many usually buy their lunch or a part of it in the lunch room? How many usually bring lunches? Where do they eat them? How many usually eat lunch at home?

6. Please indicate the amount usually spent in the lunch room by women for their noon lunch The amount usually spent by men Are these amounts estimated, or calculated from some checking or tally system?

7. Is the lunch room run at cost? At profit? At a loss? What is the cost per week for raw materials? For fuel? For entire preparation of the food? For the serving of food? For clearing away? For space? For light? For heat? For upkeep? For salaries? What articles of food are purchased ready to serve, to save baking or cooking?

8. How many people are required to prepare the lunch? To serve it? To clear away? How many persons who assist in the preparation or serving are also employed by the firm outside the lunch room? Is the lunch room managed by a person in the employ of the firm, or leased to a contractor? Does a house committee have any oversight of the lunch room? How many members? How long does a member serve? Are both employers and employees represented on this committee?

9. Check any of the following things which are furnished for the lunch room: Piano Graphophone Magazines Books Newspapers A permanent library A station of the city library Are any of these furnished in a separate rest or recreation room? Please name any other attractive features in the furnishings or equipment of the lunch room

10. If possible, kindly enclose menus for six consecutive days, sample of check or ticket used in sale of food, and any booklets or literature in regard to equipment for the comfort, recreation and education of employees.

Please state your opinion of providing lunch facilities for women employees, as a business policy.

Name of firm

Manager of Lunch Room.

Return to RESEARCH DEPARTMENT, WOMEN'S EDUCATIONAL AND INDUSTRIAL UNION, 264 Boylston Street, Boston.

Form No. 4.

Organized Houses for Women.[1]

1. Name 2. Address 3. When founded
4. Purpose
5. Is the plant owned by the association? 6. Estimated value
7. How supported? Endowment Donations Fee from guests
8. Income from all sources (last fiscal year)
9. Amounts paid for taxes 10. Insurance 11. Interest
12. Who are the beneficiaries?
Age limit Wage limit References required
13. Capacity of the house 14. Number of guests Date
15. Provisions for transients Number accommodated Date
16. How do girls learn about the house?
Do you advertise? Co-operate with room registries?
17. List of guests, classified by age and wage groups. (When supplied, this was put on a separate sheet.)
18. General appearance of house
19. Provisions for social life of guests
20. Library
21. Medical department
22. Laundry, equipment Charge Extent of patronage
23. Sewing room, equipment Extent of patronage
24. Does the house furnish towels and bed linen? Launder them?
25. Cost of supervising the house
26. Cost of cleaning the lodging and social part of the house Number employed
Total weekly wages
27. Is the house used as a neighborhood social center?
28. Where is the dining room located?
29. General appearance
30. Equipment: Tables, number and sizes Covering of tables Dishes, etc.
31. Meal hours
32. Method of serving
33. Estimates of costs of dining-room department for one week: Lighting
Cleaning Serving the food Preparation of food
Laundering
34. Raw materials used in one week. (This information was supplied in the shape of bills, storeroom orders or reports from cooks or managers.)
(*a*) Meat (cuts) Amounts Costs
(*b*) Fowl and fish
(*c*) Milk, cream, butter and eggs (each item separate)
(*d*) Fruits and fresh vegetables
(*e*) Flour and cereals
(*f*) Groceries
35. Is there a dietitian in the house? If so, what training and duties are required?
36. Are employees served the same food as guests?
37. When do they eat? Number served from dining room
38. Are dining-room employees used in caring for the lodging part of the house?
39. How are supplies purchased? Retail Wholesale in open market
Wholesale, with bids Wholesale, contracts for future delivery
40. Provisions for storing food
41. Accounting of storeroom
42. Menus for one week
43. Reports giving itemized summaries of income from all sources, and expenditures for the entire house

Remarks:

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[1] The information about the organized houses was obtained on two schedules and in various forms. Bills, storeroom orders and reports from persons in charge were supplemented with data gathered from printed reports. The topics covered in both the visitors' and house managers' schedules are included in this form.

FORM NO. 5.

Food and Living Conditions of Women Dispensary Patients.[1]

1. Name 2. Address 3. Age
4. Birthplace: (*a*) Individual (*b*) Father (*c*) Mother
5. Years in U. S.: (*a*) Individual (*b*) Father (*c*) Mother
6. Occupation: (*a*) Father (*b*) Mother
7. Number in the home, indicate kinship and which are wage earners
8. Tenement, floor Separate house No. rooms Inside rooms

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9. Occupation of subject 10. Employer 11. Age of beginning work
12. Time in present position 13. Other positions during past year
14. Wages: Time Piece Amount per week 15. Idle time last year
16. Hours of work, from to Noon period, from to Total weekly
Overtime
17. Time per day: Sitting Standing, Walking, Going to work, Ride, walk
18. Workroom: Floor Elevator Lighting Temperature Dust Odors
19. Hours per week: (*a*) Housework (*b*) Sewing (*c*) Laundering
20. Forms and amount per week of recreation

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21. Bedroom of subject: (*a*) Daylight (*b*) Heat (*c*) Outside windows
(*d*) Open at night
22. Toilet 23. Bathroom 24. Baths, how often
25. Physical condition, former illnesses
26. Teeth: (*a*) When cleaned (*b*) Decayed (*c*) Pulled (*d*) Ache (*e*) Visits to dentist
27. Weight: (*a*) Present (*b*) Best (*c*) Lowest 28. Height 29. Skin
30. Meals: Hot At home At work Hours Time spent Alone
Breakfast
Lunch
Supper
31. Use of Tea Milk Candy Water Coffee Alcohol Pickles

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32. Remarks[2]

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[1] This form is taken largely from the one used in a prior study of women dispensary patients made at the Massachusetts General Hospital. See p. 126, note 4.

[2] Menus for dispensary patients were obtained on Forms Nos. 1 and 6.

FORM No. 6.

Food eaten in One Week and what it costs.

DAYS (PLEASE FILL IN DATES).	What did You eat for Breakfast?	What did You eat for Lunch?	What did You eat for Supper?	Where did You eat Each of these Meals, and what did Each cost?
Monday, Date.				
Tuesday, Date.				
Wednesday, Date.				
Thursday, Date.				
Friday, Date.				
Saturday, Date.				
Sunday, Date.				

Please mail the completed record to Research Department, 264 Boylston Street, Boston, Mass. (A stamped and addressed envelope was left with each person who was requested to return the form.)

Appendix B.

FIRMS HAVING AN EMPLOYEES' CAFETERIA.

Mercantile Establishments.

1.	L. S. Ayres Company,	Indianapolis, Ind.
2.	Bloomingdale Bros.,	New York, N. Y.
3.	Chandler & Co.,	Boston, Mass.
4.	The Emporium,	San Francisco, Cal.
5.	Marshall Field & Co.,	Chicago, Ill.
6.	Wm. Filene's Sons Company,	Boston, Mass.
7.	Gilchrist Company,	Boston, Mass.
8.	Gimbel Bros.,	Philadelphia, Pa.
9.	Greenhut–Siegel–Cooper Company,	New York, N. Y.
10.	Hochschild Kohn Company,	Baltimore, Md.
11.	The Halle Bros. Company,	Cleveland, Ohio.
12.	C. F. Hovey & Co.,	Boston, Mass.
13.	Jordan Marsh Company,	Boston, Mass.
14.	LaSalle & Koch Company,	Toledo, Ohio.
15.	R. H. Macy & Co.,	New York, N. Y.
16.	Magrane Houston Company,	Boston, Mass.
17.	R. H. Stearns & Co.,	Boston, Mass.
18.	John Wanamaker,	Philadelphia, Pa.
19.	R. H. White Company,	Boston, Mass.
20.	Woodward & Lothrop,	Washington, D. C.

Factories.

1.	Ballard & Ballard,	Louisville, Ky.
2.	H. Black & Co. (Wooltex),	Cleveland, Ohio.
3.	Cleveland Twist Drill Company,	Cleveland, Ohio.
4.	Dennison Manufacturing Company,	Framingham, Mass.
5.	Eastman Kodak Company,	Rochester, N. Y.
6.	Joseph & Feiss Company (Clothcraft),	Cleveland, Ohio.
7.	Fels & Co.,	Philadelphia, Pa.
8.	National Lamp Works of General Electric Company,	East Cleveland, Ohio.
9.	Westinghouse Electric and Manufacturing Company,	East Pittsburg, Pa.
10.	Western Electric Company,	New York, N. Y.
11.	H. J. Heinz Company,	Allegheny, Pa.
12.	International Harvester Company,	Chicago, Ill.

13. Larkin Manufacturing Company, ... Buffalo, N. Y.
14. Lowe Bros. Company, ... Dayton, Ohio.
15. National Cash Register Company, ... Dayton, Ohio.
16. National Biscuit Company, ... New York, N. Y.
17. The Norton Company, ... Worcester, Mass.
18. Thos. G. Plant Shoe Company, ... Boston, Mass.
19. Swift & Co., ... Chicago, Ill.
20. Shredded Wheat Company, ... Niagara Falls, N. Y.
21. J. P. Squire & Co., ... Cambridge, Mass.
22. Sherwin-Williams Company, ... Cleveland, Ohio.
23. Talbot Mills, ... North Billerica, Mass.
24. United States Steel Corporation, ... New York, N. Y.
25. United States Envelope Company, ... Springfield, Mass.
26. United Shoe Machinery Company, ... Beverly, Mass.
27. Wood Worsted Mill, ... Lawrence, Mass.
28. Westinghouse Air Brake Company, ... Wilmerding, Pa.
29. Waltham Watch Company, ... Waltham, Mass.
30. Packard Motor Company, ... Detroit, Mich.
31. Jeffrey, Thos. B., Company, ... Kenosha, Wis.
32. Royal Worcester Corset Company, ... Worcester, Mass.

Others.

1. Public Service Railway Company of New Jersey, . Newark, N. J.
2. First National Bank, ... Chicago, Ill.
3. Metropolitan Life Insurance Company, . . . New York, N. Y.
4. New York Life Insurance Company, . . . New York, N. Y.
5. Curtis Publishing Company, ... Philadelphia, Pa.
6. Outlook Company, ... New York, N. Y.
7. Plimpton Press, ... Norwood, Mass.
8. New England Telephone and Telegraph Company, Boston, Mass.
9. Women's Educational and Industrial Union, . . Boston, Mass.

Appendix C.

METHODS OF CALCULATING THE VARIETY OF FOOD.

In considering variety of food eaten in one week, two difficulties of classification were encountered, — first, the schedules to be used did not include reports of the same number of meals in all cases, and second, the variety of food was large and, at first glance, bewildering. Since the food schedules were filled in for periods varying in length from two days to seven, the following method for reducing all menus to 21 meals was adopted.

The variety of food eaten at one meal was regarded as 1/21 of the probable total variety for a week. All schedules containing the same number of meals were placed in one group, numbers showing the frequency of occurrence of different kinds of food for the group were found, and multiplied by 21/X, X representing the number of meals of each person in the group. The products were divided by the numbers of persons in the groups. This method resulted in the shortcomings of one group correcting those of another. Six meals were evidently a fair sample of 21 meals. The following table shows the similarity in proportion of the foods of different kinds in the group of dispensary cases, where the reports covered, respectively, 21 and 6 meals. The variety of the 21-meal group appears exactly as reported; the variety of the women reporting 6 meals is weighted by the method described above. As will readily be seen, the two groups differ little from each other or from the total group, which includes 21-meal, 6-meal and intermediate groups, weighted as described (Table 76).

In an inquiry of this nature no attempt to obtain any kind of quantitative data was feasible. Variety could, therefore, form the only possible basis of comparison of menus. In general, variety indicates quantity to some extent, as a "helping" of meat, a slice of bread or a cup of coffee have fairly fixed quantitative meanings. Throughout this study variety of food means the number of times given articles appeared on the menus reported for one week. Percentage of variety means the ratio to the total variety of any one article of food. The total range, or variety, is the sum of the number of times all articles are mentioned in the menus. Since tea and coffee have little food value they were discussed separately; therefore total variety, as the

TABLE 76. — *Frequency of Use in One Week of Certain Foods, and the Proportions which they constitute of the Total Weekly Range of Diet of One Hundred and Twenty-six Dispensary Patients from whom Twenty-one Meal and Six Meal Schedules were obtained.*

MEAL GROUPS.	Number of Women reporting.	AVERAGE NUMBER OF TIMES A WEEK CERTAIN FOODS WERE EATEN.															
		TOTAL.		FOODS CHARACTERIZED BY —						SOUP.		COCOA, MILK.		PICKLES.		COFFEE, TEA, ETC.	
				PROTEIN.		CARBOHYDRATES.		MINERAL SUBSTANCES.									
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Total group, . .	126	70.6	100	15.1	21.2	23.0	32.7	12.7	18.1	3.8	5.4	5.9	8.3	.2	.2	9.9	14.1
21 meal group, . .	51	72.8	100	15.0	20.7	24.6	33.8	12.9	17.7	3.5	4.8	5.9	8.1	.3	.4	10.6	14.5
6 meal group, . .	53	69.1	100	15.2	22.0	22.6	32.5	12.4	18.0	4.0	5.7	5.0	7.3	.1	.2	9.8	14.2

term is used in the discussions in Chapters III. and V., means variety of food excluding coffee, tea and coffee substitutes. The basis of classification of articles was the convenient one suggested by Dr. Langworthy,[1] and food groups were arranged as follows: —

Group 1. — Beverages having little food value: tea, coffee, miscellaneous beverages, principally soda water and coffee substitutes.

Group 2. — Other beverages: cocoa, chocolate and milk, including malted milk and eggnog.

Group 3. — Carbohydrate food: bread of all kinds; cake, including cookies; cereals; macaroni; desserts, including ices and puddings not composed chiefly of fruit; pastry, including fruit pies; and candy, of which mention was seldom made.

Group 4. — Protein food: cheese, eggs, beans, fish and meats. Meats classified as beef, including veal; pork, including corned shoulder, ham and bacon; mutton and lamb; chicken and turkey; other meat, including sausage and meat, kind not mentioned. (Among Jewish people meat usually meant beef.)

Group 5. — Salads of all kinds, largely lettuce and fruit or vegetable mixtures, potatoes, and other vegetables except beans. Vegetables were either fresh or canned, but no attempt to distinguish the two could be made.

Group 6. — Fruits, fresh or cooked, and fruit puddings.

Group 7. — Soups.

Group 8. — Pickles.

No effort to classify fatty foods separately proved successful, partly because of the frequent omission from the menus of the mention of butter, although its use probably was general. Among Jewish people this is not true, as they do not serve butter and meat at the same meal.

As will readily be seen, this classification is approximate only, adopted chiefly for convenience. It is obvious, for example, that pastry does not belong exclusively to the carbohydrate group, beans to the protein group, or potatoes to the mineral group. Almost all of the foods could have been classified under more than one head. Because of the difficulty of properly classifying liquid foods, soups, cocoa and milk are kept separate throughout the discussion.

[1] See Langworthy, C. F.: Food Selections for Rational and Economical Living, Scientific Monthly, Vol. II., No. 3 (March, 1916), pp. 302, 303.

Appendix D.

BIBLIOGRAPHY.

Reliable works dealing with the most important aspects of dietetics are included in the following list of books and magazine articles. While the books intended for physicians are usually too technical for lay readers, the bulk of the citations are within the grasp of any person who has received a secondary school education. References to the many excellent bulletins issued from the Food Laboratory of the Bureau of Chemistry of the United States Department of Agriculture are omitted. These are often of great practical value, and are distributed without charge or sold for a trifling sum. Persons interested in following the results of original research in this field should consult the current numbers of the "Journal of Biological Chemistry" and the publications of the Carnegie Nutrition Laboratory.

Bayliss, W. H. "The Physiology of Food and Economy in Diet." London. Longmans, Green & Co., 1917, 107 p.

Written for use during the present war. A simple but scholarly presentation of essentials.

Brewster, Edwin Tenney, and Brewster, Lilian. "The Nutrition of a Household." Boston and New York. Houghton Mifflin Company, 1915, 208 p.

Revision of a series of magazine articles dealing with the subject in a non-technical way.

Bryce, Alexander. "Modern Theories of Diet and their Bearing upon Practical Dietetics." New York. Longmans, Green & Co., 1912, 368 p.

Summarizes theories of metabolism, and gives a critical discussion of the theories and practices of vegetarianism, low-protein and purin-free diets, schemes recommending special uses of mineral salts, water, curdled milk, etc., and various fasting and forced feeding plans.

Cathcart, E. P. "The Physiology of Protein Metabolism." London and New York. Longmans, Green & Co., 1912, 142 p.

Gives the important results of the investigations of the protein requirements of the body, the effects of starvation and bodily activity on the utilization of proteins, and the extent to which fats and carbohydrates may serve as sparers of protein.

Cannon, Walter B. "The Mechanical Factors of Digestion." New York. Longmans, Green & Co., 1911, 227 p.

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INDEX.

INDEX.[1]

Accounting System, organized houses, 106.

Adequacy of Diet, organized houses, 114–117.

Adrift, term applied to women, 69.

Age, women adrift, 70, 71; women in organized houses, 106, 124; dispensary patients, 127, 130, 132, 134.

Age at Beginning Work, women dispensary patients, 155.

American Working Women, variety of food in menu, 38–42.

Anemia, women dispensary patients suffering from, 135.

Apartment Houses, for light housekeeping, 172–173.

Attractiveness of Food Service, importance of, 114, 121.

Back Bay, living expenses of self-supporting women, 77.

Baked Beans, *see* Beans.

Baltimore, statistics of women at work, 14, 15, 16; retail food prices compared with Boston, 17; number of women workers living at home, and boarding, 66.

Basement Dining Rooms, organized houses, 121.

Bathing Facilities, dispensary patients, 156–157.

Beal Nurses Home, purpose and management, 108.

Beans, frequency of use in menu, 94; as part of breakfast, 96; in diet of dispensary patients, 137, 138, 143, 144, 150, 152; of low-wage workers, 174.

Beef, *see* Meat.

Bethany Union, purpose and management, 107.

Beverages, classification, 198.

Bibliography, 199–202.

Bill of Fare, *see* Menus.

Board, expenditure of workers for, 75, 83; cost with room in organized houses, 115.

Boarders, women workers reported as, 66–67.

Boarding Houses, cost of food, 83, 84; comparison with restaurants, 86; *see also* Organized Houses.

Bookbinder, metabolism of, 116.

Boston, statistics of women at work, 13–16; retail food prices compared with other cities, 17; number of women workers living at home, and boarding, 66–68.

Box Lunches, attitude of workers towards, 42.

Bread, in average menu, 18, 38, 40, 45, 46, 100; frequency of use, 90, 95; consumption in low-wage group, 93; as part of breakfast, 96; served by organized houses, 110–113; in diet of dispensary patients, 138, 139, 140; of immigrant groups, 145, 149; in constipation cases, 150; sample menu, 152–153; excessive use of, 174.

Breakfast, working women, 93, 96; time taken for, 153; omission of, 154.

Brooke House, purpose and management, 107.

Brookline, living expenses of self-supporting women, 77.

Brush Factories, living arrangements of women workers, 67.

Butter, in Russian diet, 143; in diet of dispensary patients, 152, 153.

Cafeteria, Employees, patronage, 22, 23; luncheon cost, 47, 49–54; department stores, 47–49; comparison with commercial restaurants, 49–54, 58; types, 59–60; equipment, 60–62; cost of food and prices, 61–64; firms conducting, 194–195.

Cafeteria Service, restaurants, 45; organized houses, 122.

[1] Prepared by Ethel M. Johnson, librarian of the Women's Educational and Industrial Union.

CAKE, in average menu, 18, 38, 42, 46; frequency of use, 91, 95; on menus of organized houses, 110–113; in diet of dispensary patients, 138, 139, 143; of immigrant groups, 145; in constipation cases, 150; sample menu, 152–153.

CALIFORNIA IMMIGRATION COMMISSION, domestic science instruction provided by, 163.

CALORIES, FOOD, menus of organized houses, 115; requirements of working women, 116.

CAMBRIDGE, living expenses of self-supporting women, 77.

CANADIAN WOMEN, kind of food in menu, 38–42.

CANDY, in average menu, 39, 44; in lunches put up by organized houses, 113; in diet of dispensary patients, 149.

CANDY FACTORIES, living arrangements of women workers, 67.

CARBOHYDRATE FOODS, variation with wage groups, 89-91; frequency in weekly menu, 92, 95; proportion in diet of dispensary patients, 136, 138, 139, 140, 142; increase in use with wage, 143; relation of nationality to, 145; in constipation cases, 148, 150; frequency in diet of dispensary patients, 197; foods included, 198.

CEREALS, in average menu, 18, 46, 90–91; increase in use with wages, 91; frequency of use, 95–96; on menus of organized houses, 110–113; as protein source, 118; in diet of dispensary patients, 138, 139, 143, 145, 152, 153; in constipation cases, 150; in diet of high-wage workers, 174.

CHARLESBANK HOMES, purpose and management, 108.

CHEESE, in average menu, 38, 40, 46; frequency of use, 94, 99; on menus of organized houses, 109; in diet of dispensary patients, 137–138, 143, 144; in constipation cases, 150; in diet of wage earners, 166.

CHICAGO, statistics of women at work, 14–16; retail food prices, 17; living arrangements of women workers, 66; rates of boarding houses, 120.

CHICKEN, *see* MEAT.

CHOICE OF FOOD, *see* VARIETY OF FOOD.

CHURCHES, assistance in living arrangements for women, 179.

CLASSIFICATION of food, 198.

CLERICAL WORKERS, dispensary patients, 131; wages, 132; dispensary departments, 133; diagnoses, 135.

CLEVELAND, statistics of women at work, 13–16; retail food prices, 17; living arrangements of women workers, 66.

CLOTHING FACTORIES, living arrangements of women workers, 67.

COCOA, in average menu, 18, 39, 46, 90; frequency of use, 92, 174; on menus of organized houses, 112; in diet of dispensary patients, 136, 140, 142, 143, 152, 153, 197; constipation cases, 146, 148; in diet of high-wage workers, 174.

COFFEE, in average menu, 18, 39, 45, 46; frequency of use, 91; increase with wage, 93; on menus of organized houses, 110–113; in diet of dispensary patients, 146, 149, 152, 197; frequency in diet of low-wage workers, 174.

COLD LUNCHES, employees' reasons for preference, 28; factory workers, 163; bad effects, 164. *See also* LUNCHES.

COLORED WOMEN, organized home for, 108, 123.

COMBINATIONS, commercial restaurants, 45–46.

CONSTIPATION, women dispensary patients, 135; Russian women, 146; in relation to diet, 148–151; causes, 149, 174, 175; dietary treatment, 166.

COOKING FACILITIES, provisions for factory workers, 36–37; in organized houses, 123; *see also* CAFETERIAS, EMPLOYEES'.

CO-OPERATIVE BOARDING HOUSES, establishment, 102; capacity and occupants, 103.

CO-OPERATIVE HOUSEKEEPING, 83, 87, 99–100, 173; working women, 177–179; expenses, 177; objections to, 178; outlook for, 179.

CO-OPERATIVE LUNCHES, factory workers, 37; lunch arrangements, 165.

CORN MEAL, unpopularity, 99.

CORSET FACTORIES, living arrangements of women workers, 67.

COST OF FOOD, comparison in different cities, 17, 19; in organized houses, 117–121.

COST OF LIVING, self-supporting women, 78–89; comparison with family group, 180; in different wage groups, 82; low-wage group, 88–89.

Debility, women dispensary patients, 135.
Defective Diet, danger, 184.
Delicatessen Shops, in connection with light housekeeping, 85.
Department Stores, lunch room facilities for employees, 21, 22, 23, 32; employees' cafeterias, 47–64; comparison with commercial restaurants, 49–54, 58; variety of food, 54–58; types of lunch rooms, 59–60; equipment, 60–62; patronage and prices, 61–64; importance of, 166. *See also* Saleswomen.
Designers, wages reported, 25; length of lunch period, 30.
Desserts, frequency in menu, 91, 95; served by organized houses, 110–112; in diet of dispensary patients, 138, 139, 143, 145; in constipation cases, 150.
Diet, relation to health, 126–161, 182–184.
Dietary, organized houses, 106–121; adequacy, 114–117; protein food calories supplied, 115–117; cost of food, 117–121; source of proteins, 118; for high-wage and low-wage workers, 174. *See also* Menu.
Dietary Habits, women adrift, 93–99.
Dietetics, need for instruction in, 163, 166, 167, 173, 176, 184.
Digestive Disorders, women dispensary patients, 135; relation of diet to, 143, 146. *See also* Constipation.
Dining Rooms, organized houses, 121.
Diseases, women dispensary patients, 135.
Dispensary Patients, 126–160; classification, 127–135; diagnoses, 135; kind and variety of food eaten, 135–153, 197; in relation to nationality, 142–147; in relation to certain disorders, 148–152; eating habits, 153–154; economic status of families, 154–155; living conditions, 156–157; working conditions, 157–159; hours of labor, 158; use of leisure time, 159–160; questionnaire used, 192–193.
Domestic Servants, number living in organized houses, 104; number adrift, 105; dispensary patients, 133.
Doughnuts, as part of breakfast, 96.
Dressing Rooms, as place for eating lunch, 22.

Earnings, women in subsidized houses, 105–106. *See also* Wages.
Eating Habits, women adrift, 168–176.
Eggs, in average menu, 18, 38, 40, 46, 90; frequency of use, 94, 96; on menus of organized houses, 109–112; as protein source, 118; in diet of dispensary patients, 137, 138, 143, 144; in constipation cases, 150, 152, 153; frequency in diet of low-wage workers, 174.
Eleanor Association, mention of, 103.
Emotions, effect on digestion, 171.
Employees' Cafeterias, *see* Cafeterias, Employees'.
Employees' Lunch Rooms, importance of, 166; questionnaire regarding, 190. *See also* Cafeterias, Employees'.
Employers', interest in lunch service for workers, 165, 166.
English Women, variety of food in menu, 38–41.
Expenditure for Food, women adrift, 72–78, 174, 175–176, 180; effect of residence on, 75–77; increase with wage, 89–90, 96–97, 99, 169, 176; women in organized houses, 115, 120, 121, 122, 179; in co-operative housekeeping, 177–178.

Factories, providing cooking facilities for employees, 36; living arrangements of women workers, 67; boarding home, 102; list of those with cafeterias for employees, 194–195.
Factory Lunch Service, importance of, 165–166.
Factory Workers, inclusion in study, 20; methods of obtaining noon lunch, 21; eating facilities, 22; proportion bringing lunch from home, 23; weekly wage, 24–28; reasons for bringing lunch from home, 27–28, 35; length of noon period, 26–30, 35; use of spare time, 31, 32; relation of nativity to kind of lunch, 33–35; use of cooking facilities provided, 36–37; prices paid for lunches, 43, 45–47.
Families, dispensary patients, 154–155.
Family Budgets, comparison with individuals, 176.
Family Group, women workers outside, 65–100.
Fatigue, relation to digestive disorders, 157; resulting from light housekeeping, 170; effect on digestion, 171; resulting from excess protein, 175.
Fats, lack of in Russian diet, 143.
Fireless Cookers, for light housekeeping, 174.

Fish, in average menu, 18, 38, 40, 45, 46, 90; frequency of use, 94, 96; unpopularity, 99; on menus of organized houses, 109–112; in diet of dispensary patients, 137, 138, 143, 144, 152; in constipation cases, 150.
Food, received as wage, 14.
Food Values, *see* Calories, Food.
Foreign Working Women, proportion, Boston, 15, 16. *See also* Nationality of Workers.
Forewomen, wages reported, 25.
Frances E. Willard House, purpose and management, 107.
Franklin Square House, purpose and management, 108.
Free Lunches, number of firms providing, 63, 64.
French Women's Christian Association, purpose and management, 108.
Fruit, in average menu, 18, 39, 42, 46, 91, 93; increase in consumption with wages, 93; as part of breakfast, 96; frequency of use, 98; on menus of organized houses, 109–113; in diet of dispensary patients, 138, 140, 141, 147; of garment workers, 149; in constipation cases, 151; need of factory women, 165; in diet of wage earners, 166; in diet of high-wage workers, 174.
Fruit Venders, 42, 44.

Garment Workers, constipation among, 146.
Gas, charge for light housekeeping, 85.
German Women, variety of food in menu, 38, 42.

Harriet Tubman House, purpose and management, 108.
Health, influence of diet on, 182–184.
Health Provisions, organized houses, 124.
Hemenway, The, purpose and management, 108.
Hemenway House, purpose and management, 108.
Home Making, instruction for single women, 172.
Home-prepared Lunches, number of women interviewed bringing, 21, 23; factors determining, 24–35; relation of wage to, 24–29; relation of length of noon period to, 29–30; relation of employment to, 30–34; relation of nationality to, 34–35; provisions for supplementing, 35–37; kinds of food brought, 37–42; proportion of department store workers bringing, 54.
Homes, *see* Organized Houses.
Hosiery Factories, living arrangement of women workers, 67.
Hospitals, *see* Dispensaries.
Hot Lunches, employees' reasons for preference, 27, 29. *See also* Cooking Facilities and Lunches.
Hotels for Women, commercial, number in Boston, 103.
Hours of Work, effect on health, 154; dispensary patients, 157–158.
Housework, use of leisure time for, 159–160.

Ices, on menus of organized houses, 110–112.
Immigrant Families, need of instruction in dietetics, 163.
Income, relation to expenditure for food and rent, 72–90, 93, 96, 97, 99. *See also* Wages.
Index Numbers, food prices, Boston and other cities, 17.
Indigestion, relation of fatigue to, 171.
Infant Mortality, possible causes, 184.
Irish Working Women, variety of food in menu, 38–42.
Irregularity, in meals of dispensary patients, 154.
Italian Women, variety of food in menu, 38–42.

Jewish Religion, influence on diet, 143.
Jewish Women, variety of food in menu, 38–42.

Kitchenette Apartments, need for low-priced, 172.

Labor Cost, employees' cafeteria, 61.
Laundries, living arrangements of women workers, 67.
Laundry, expenditure of self-supporting women for, 81; facilities provided by organized houses, 124; done in room, 170.
Leisure Time, use by dispensary patients, 159–160.

LENGTH OF NOON HOUR, relation to wage, 163.
LIGHT HOUSEKEEPING, working women, 83–86; charge of gas for, 85; dietary habits in connection with, 93; per cent. of women studied practicing, 169; objections to, 170–172.
LIQUID FOODS, in diet of dispensary patients, 142, 146, 148, 152.
LIVING ARRANGEMENTS, women workers, 66–68; in the eight largest cities, 66; in different industries in Massachusetts, 67; group of Boston workers studied, 83–87; dispensary patients, 132, 134, 156–157.
LIVING EXPENSES, *see* COST OF LIVING.
LIVING WAGE, relation to food, 25, 26; to rent, 99. *See also* WAGES.
LOANS, importance of, to working women, 175.
LODGINGS, women workers, *see* ORGANIZED HOUSES; *also* RENT.
LONELINESS, women adrift, 69, 71.
"LONE-WOMAN PLAN OF LIVING," 168–173.
LOW-WAGE WORKERS, expenditures, 88–89; diet, 93, 174.
LUNCH ALLOWANCE, working girls, 47.
LUNCH ROOM FACILITIES, need for, in business establishments, 166–167.
LUNCH ROOMS, COMMERCIAL, *see* RESTAURANTS.
LUNCHES, 20–64; methods of obtaining, 21, 23, 33; places for eating, 22–24; relation of wages to, 24–28; length of noon hour, 29–30; character of work, 30–34; by nationality, 33–35; cooking facilities for, 35–36; kind of food brought from home, 37–42; typical lunch, 37; box lunches, 42; fruit venders as sources of supply, 42, 44; prices paid by employees, 43; kind supplied by commercial restaurants, 44–47; combinations and prices, 45–46; department store cafeterias, 47–49; quality and prices in restaurants and employees' cafeterias, 49–54; variety of food secured in cafeterias, 54–58; types of lunch rooms, 59–60; prices paid by men and women employees, 59; predominant prices, 61–63; put up by organized houses, 111; of dispensary patients, 151, 152; suggested improvements, 163–167; questionnaire used, 189.
LUXURIES, absence of, in diet of dispensary patients, 140, 143.
MACARONI, frequency of occurrence in menus, 95, 99; as substitute for vegetables, 113; in diet of dispensary patients, 138, 139; by nationality, 145; in constipation cases, 150; in diet of wage earners, 166.
MACHINE OPERATORS, strain of work, 157; hours, 158.
MANAGEMENT, organized houses, Boston and vicinity, 107–108.
MARITAL CONDITION, women dispensary patients, 131.
MEAL HOURS, *see* LUNCHES; *also* NOON PERIOD.
MEALS, prepared in room, 83–84; cost compared with restaurants, 85–86; manner of serving, 153–154; irregular periods for, 154; minimum cost at restaurants, 169. *See also* LIGHT HOUSEKEEPING.
MEAT, in average menu, 18, 38, 40, 90, 97, 100; frequency of use, 94, 96; on menus of organized houses, 109–112; as protein source, 118; in diet of dispensary patients, 137, 138, 140, 143, 144, 149; in Russian diet, 143; in constipation cases, 150, 152, 153; in diet of low-wage earners, 174, 175.
MEN, predominant prices paid for lunch, 61; cost of necessary food, 175.
MENUS, average, 18; retail prices in connection with, 19; variety of food, 37–42, 89–93; prices, 43–47; sample menus, 52–53, 97, 152–153; served by organized houses, 110–112; variety required, 114, 173–176; dispensary patients, 140, 143.
MENUS, ECONOMICAL, need for instruction in, 163.
MERCANTILE ESTABLISHMENTS, list of, having cafeterias for employees, 194.
METABOLISM, women in different occupations, 116.
MILK, in average menu, 18, 39, 46, 90; frequency of use, 92, 174; menus of organized houses, 110–113; as protein source, 118; in diet of dispensary patients, 136, 140, 142, 143, 152–153, 197; in constipation cases, 146, 148, 149; in diet of high-wage worker, 174.
MINERAL SUBSTANCES, in diet of women adrift, 92, 98; in diet of dispensary patients, 136, 140, 141, 142, 147, 197; in constipation cases, 148, 151, 152; in diet of high-wage workers, 174.
MINIMUM WAGE, department stores, 25.

MONEY WAGES, proportion of women workers receiving, 14, 15.
MONOTONY, in diet of dispensary patients, 140, 149, 152.
MORBIDITY STATISTICS, lack of, 182–183.
MUTTON, *see* MEAT.

NATIONALITY OF WORKERS, relation to kind of lunch, 33–35; to kind of food, 37–42; women adrift, 70, 71; dispensary patients, 128, 130, 132, 134, 143–147, 149.
NERVE-STRAIN, industrial, 157–158.
NERVOUS IRRITABILITY, from stimulants, 175.
NEW ENGLAND KITCHEN, establishment, 3.
NEW YORK ASSOCIATION FOR IMPROVING THE CONDITION OF THE POOR, mention of dietary, 176.
NEW YORK CITY, statistics of women at work, 14–16; retail food prices compared with Boston, 17; living arrangements of women workers, 66; cost of living, women adrift, 79, 80; rates of boarding homes, 120–121.
NOON LUNCH, *see* LUNCHES.
NOON PERIOD, relation of length to kind of lunch, 26–30; relation to wage, 26, 29; use made of, 31–32; dispensary patients, 153.
NUTRITION DISORDERS, *see* DIGESTIVE DISORDERS.
NUTS, in average menu, 39, 46.

OCCUPATION, relation to kind of lunch, 30–34; to length of noon hour, 30, 32; women adrift, 69, 70; women living in organized houses, 103–105; dispensary patients, 131, 132, 133, 134, 135; families of patients, 155; relation to health, 157–159.
OCTAVIA HILL TENEMENTS, mention of, 172.
OFFICE WORKERS, inclusion in study, 20; methods of obtaining noon lunch, 21; eating facilities, 22; wages, 25–27; kind of lunch, 26, 28, 35; noon period, 29–30, 163; use of spare time, 31, 32; parentage and nativity, 33; use of cooking facilities provided, 36–37; prices paid for lunches, 43, 45–47; number living in organized houses, 104.
OHIO, cost of living, women workers, 79, 80.
ORGANIZED HOUSES, food and expenses, 101–125; classes, 101; when established, 102; capacity of different types, 103; women occupants, 103–106; occupations of women, 104; weekly earnings of women in subsidized houses, 105–106; food supplied in Boston houses, 106, 109–114; menus, 110–112; purpose and management of houses, 107–108; adequacy of the food supplied, 114–117; prices charged, 115, 120–121, 124; cost of food, 117–121; methods of serving food, 121–122; factors influencing use of houses, 122–125; regulations, 122–124; food, 179–182; charges, 179–180; lack of accounting system, 180; improvements suggested, 181–182; questionnaire used, 191.
OVERCROWDING, homes of dispensary patients, 156.
OVERHEAD CHARGES, employees' cafeterias, 63, 64.

PAPER-BOX FACTORIES, living arrangements of women workers, 67.
PASTRY, in average menu, 18, 38, 46, 91; frequency of use, 95; on menus of organized houses, 110–112; in diet of dispensary patients, 138, 139, 143, 145; in constipation cases, 150.
PATIENTS, *see* DISPENSARY PATIENTS.
PEANUT BUTTER, in diet of wage earners, 166.
PHILADELPHIA, statistics of women at work, 14–16; retail food prices compared with Boston, 17; living arrangements of women workers, 66.
PHYSICAL STRAIN, effect on women, 184.
PICKLES, in diet of women adrift, 90, 92; in diet of dispensary patients, 136, 140, 142, 197; in constipation cases, 148.
PIE, in average menu, 38, 42, 45, 46, 91, 96; on menus of organized houses, 110–111; diet of dispensary patients, 152.
PIECEWORK, relation to wage, 163.
PIECE WORKERS, wages, 24–26; lunches, 25, 26, 35; use of noon period, 32.
PITTSBURG, statistics of women at work, 13–16; retail food prices compared with Boston, 17; living arrangements of women workers, 66.
POLISH WOMEN, variety of food in menu, 38–41.
PORK, *see* MEAT.

Positions, change of, dispensary patients, 158–159.
Potatoes, in average menu, 91; in low-wage group, 93; as part of breakfast, 96; frequency of use, 98, 100; on menu of organized houses, 109–112; in diet of dispensary patients, 140, 141, 147, 149, 152, 153; in constipation cases, 151.
Power Machine Operators, lunches, 23; wages, 25; noon period, 30, 163; use of spare time, 31.
Power Machines, as place for eating lunch, 22, 23.
Preventable Diseases, relation of food to, 126–160.
Prices, retail, statistics, 17, 19; commercial restaurants, 43–47; employees' cafeterias, 47, 49–54, 61–64; commercial cafeterias, 54; predominant prices, 61, 63.
Priscilla Inn, purpose and management, 108.
Professional Service, number of women engaged in living in organized houses, 104; number adrift, 105; number of dispensary patients, 131, 133.
Protein, form in which secured, 40; variation in, with wage, 89, 90, 93, 100; frequency in weekly menu, 92, 94; in menus of organized houses, 115; source of, 118; in diet of dispensary patients, 136, 137, 138, 140, 142, 197; increase in use with wage, 143; in Russian diet, 143–144, 146; constipation cases, 146, 148, 150, 152; in diet of high-wage earners, 174–175; foods included, 198.
Pudding, in average menu, 18, 46, 91; on menus of organized houses, 110–112.

Questionnaire, forms used in study, 187–193.

Rates, organized houses, 110–112, 115; basis for, 117, 119–121; comparison with Chicago and New York houses, 120–121.
Raw Materials, cost in employees'. cafeterias, 61, 63; in school lunch service, 86; in organized houses, 112.
Ready-to-serve food, minimum daily cost, 169.
Recreation, noon period, employees', 31–32, 35; provided by organized houses, 124; dispensary patients, 159–160. *See also* Rest Rooms.
References, requirements of organized houses, 123.
Regulations, organized houses, 122–125.
Religious Liberty, organized houses, 123.
Rent, expenditure of self-supporting women for, 75–78; relation to income, 76–77; in suburbs, 173.
Residence, effect on expenditure for food and rent, 75–78.
Restaurants, patronized by factory workers, 43–47; prices paid by patrons, 43, 83, 84; popular dishes and combinations, 45–46; kinds of food in lunch menus, 46; positions of patrons, 47; patronized by women adrift, 168, 169.
Rest Rooms, employees, 60; need for, 165.
Retail Stores, living arrangements of women workers, 67. *See also* Department Stores.
Rice, omission from menus, 99; in diet of wage earners, 166.
Richards, Mrs. Ellen H., mention of, 173.
Roommates, objection to, 78, 171.
Room Rent, *see* Rent.
Russian Women, kind of food in menu, 38–41, 143–147, 149.

Salads, in average menu, 18, 46, 91, 98; on menu of organized houses, 110–113; in diet of dispensary patients, 138, 141, 143, 147, 151; inclusion, 198.
St. Louis, statistics of women at work, 14–16; retail food prices, 17; living arrangements of women workers, 66.
St. Helena's House, purpose and management, 107.
Saleswomen, inclusion in study, 20; methods of obtaining noon lunch, 21, 33; lunch facilities 22, 47–49; proportion bringing lunch from home, 23; wages, 25; length of noon period, 29–30, 32; use of spare time, 31, 32, nationality in relation to kind of lunch, 33–35; number living in organized houses, 104; dispensary patients, 131, 132, 133; diagnoses, 135, working conditions, 157; hours, 158.
Sandwiches, in average menu, 18, 38; fillings used, 40; meat and fish preferred by different nationalities, 41; restaurant prices, 45; lunches put up by organized houses, 113.
School Luncheons, when started, 3; cost to individual, 46; per cent. of cost for raw material, 86; public function, 165–166.

School Lunch Department, Women's Educational and Industrial, mention of, 86.
Seamstresses, metabolism, 116.
Self-supporting Women, food problem, 65–100; living arrangements, 66–67, 81–85; occupations, Boston group, 69; age and nativity, 70–71; wages, 70, 72–95, 98, 99; expenditure for food, 72–89; per cent. of income spent for food, 75; effect of residence on expenditure, 75–77; expenditure for rent, 76–78; for food and rent combined, 78–82; expenditures of low-wage group, 88–89; variety in choice of food, 89–93; dietary habits, 93–99; number of women adrift in Boston, 100.
Serving, methods employed in organized houses, 121–122; in homes of dispensary patients, 153–154.
Sex, dispensary patients, 127.
Sickness, prevalent forms among women, 183.
Simmons College Alumni Association, co-operation in securing schedules, 68.
Sleeping Arrangements, dispensary patients, 156.
Social Insurance, problem of women adrift, 167–168.
Somerville, living expenses of women adrift, 77.
Soup, in average menu, 18, 38, 46, 90; frequency of use, 92; on menus of organized houses, 110–112; in diet of dispensary patients, 136, 140, 142, 146, 152, 153; in constipation cases, 146–148; frequency in diet of dispensary patients, 197.
South End, price of board, 75; room rent, 77.
Spare Time, use made by employees, 31–32.
Standard of Living, readjustment of, 162–163; women adrift, 168–176; permanent character of living arrangements, 170–171. *See also* Cost of Living.
Staple Food, in diet of dispensary patients, 140.
Stimulants, in diet of low-wage workers, 174.
Students, living expenses in Boston, 87; boarding homes, 102–103; number in organized houses, 103.
Subsidized Boarding Houses, number in Boston, 101; date of establishment, 102; capacity and occupants, 103; earnings of women occupants, 105–106; lack of business methods, 117; methods of raising funds, 119; regulations, 123.
Supper, time taken for, 153; manner of serving, 153–154.
Swedish Women, variety of food in menu, 38–39, 41.
Sweets, in menus of workers, 91, 93; increase of, with wage, 100; in diet of dispensary patients, 149, 152. *See also* Candy.

Table Waste, estimate for, 115.
Tea, in average menu, 18, 39, 42, 46; frequency of use, 91; in low-wage group, 93; as part of breakfast, 93; on menus of organized houses, 110–113; in diet of dispensary patients, 146, 149, 152; frequency in diet of low-wage workers, 174; frequency in diet of dispensary patients, 197.
Teachers, number living in organized houses, 104.
Teeth, influence on diet of dispensary patients, 146, 156.
Telephone Operators, number living in organized houses, 104; dispensary patients, 131; wages, 132; dispensary departments, 133; diagnoses, 135; hours, 157, 158.
Temporary Home for Working Women, purpose and management, 107.
Trained Nurses, number living in organized houses, 104.

Unemployment, how met by women interviewed, 88.

Variety of Food, women adrift, 37–42, 173–176; increase with wage, 89–93; on menus of organized houses, 106, 109–114; low-priced and high-priced houses, 109; diet of dispensary patients, 140, 143; noon lunches, 165; method of calculating, 196–198.
Vegetables, in average menu, 18, 38, 40, 46, 91; increase in consumption with wages, 93, 100; frequency of use, 98; on menus of organized houses, 109–113; as protein source, 118; in diet of dispensary patients, 138, 140, 141, 147; increase in use with wage, 143; lack of in Russian diet, 146; in diet of garment workers, 149; in constipation cases,

151; in diet of wage earners, 166; frequency of use of by low-wage workers, 174.
Vocational Education, for women, 172.

Wage Limit, guests in organized houses, 123–124.
Wages, food as part, 14; relation to workers' lunch, 24–29, 47; to length of noon period, 26, 29; women adrift, 70, 72–83, 85, 87–100; average weekly, 83; low-wage group, 88–89; relation to variety in menus, 89–93; relation to diet of dispensary patients, 140, 155. *See also* Money Wage.
Waitress, metabolism, 116.
Waltham Watch Factory, boarding home, 102.
War, effects on women, 167.
Wash Woman, metabolism, 116.
Water, amount taken by dispensary patients, 146.
Weight, comparison of working women and college women, 182–183.
Welfare Work, Employers', *see* Cafeterias, Employees', Cooking Facilities, Rest Rooms.
Wellesley College Students, comparison of physical development with that of wage-earning women, 182–183.
West End, living expenses of women adrift, 77.
Wilcox Hall, purpose and management, 108.
Women, statistics of employment, 13–16.
Women Adrift, number in Boston, 1900 and 1910, 105; increase in number, 167–168; living arrangements, 168–173; food, 173–176. *See also* Self-supporting Women.
Work, *see* Occupation.
Workrooms, as place for eating lunch, 22.
Working Girls' Homes, *see* Organized Houses.
Working Period, women adrift, 71.

Young Women, importance of adequate diet, 162–163, 164.
Young Women's Christian Association, Boston, purpose and management, 107; Cambridge, 107; French Young Women's Christian Association, 108; Roxbury, 108; gymnasium records, 183–184.